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PREFACE.

The very favourable manner in which the following outlines of lectures, on the nature, causes, and treatment of mental diseases, have been received by the profession in three former editions, has induced me to undertake the bringing out of a fourth, and much enlarged edition; in the hope that it may, in some measure, be found to lessen the difficulty which is experienced by the student, as well as the young practitioner, in obtaining an insight into this class of disorders.

If, in the judgment of those best qualified to decide upon questions of this nature, the present work shall be thought to have in the slightest degree added to the knowledge already obtained upon this subject, or to the means which may tend to mitigate or lessen the frequency of the most calamitous of human afflictions; the utmost wishes of my father and myself will have been obtained.

With regard to the lectures themselves, I may observe, that they have been delivered by my father for the last twenty-five years, both in London and in Edinburgh, to the members of the medical profession, and to such other gentlemen as signified their wish to attend them.

Since the year 1840, I have been associated with my father in the delivery of the course; and have also, since that period, been engaged in collecting facts and observations, with a view towards undertaking the present work.

In preparing the present edition for publication, I have adhered, as closely as circumstances would permit, to the form in which all the former editions have been produced. The division of the work into chapters, however, having appeared advisable to me, as avoiding those repetitions which are almost inseparable from the form of lectures, is here adopted.

The plates at the end, illustrative of the physiognomy of the different varieties of mental diseases, have been drawn under the immediate direction and superintendence of my father and myself, by Mr. Charles Gow, to whom our thanks are due, for the very able and characteristic manner in which he has executed them.

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ERRATA.

Page 33, line 13, for injured, read *uninjured.*
„ 73, „ 10, for is, read *it is.*
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ON THE

NATURE, CAUSES, AND TREATMENT

OF

MENTAL DISEASES.

CHAPTER I.

INTRODUCTION.

It must be obvious to every one who considers the intimate connexion between the mind and the body, that an acquaintance with the mental manifestations in a state of health, as well as of disease, must be highly desirable to those, who are in any way concerned in the management of hospitals or asylums for the insane, as well as to medical practitioners in general, who may at any time be required to testify as to the sanity or insanity of their patients, and that such an acquaintance must be indispensable to those who devote themselves to the treatment of mental diseases.

Numerous and varied are the shades of disorder manifested in the intellectual and moral constitution of man; from the imaginary fears of the hypochondriac, to the total loss of intellect and volition in the idiot;

or the complete overthrow of reason and natural affection in the maniac.

Although diseases of the mind do not directly affect the life of the sufferers, they too often deprive them of everything that can render life desirable; and more lasting distress and enduring regret to friends and relatives, are occasioned by them, than by any other diseased state, or indeed by death itself; which under such circumstances, is often to be hailed as a blessing.

Experience has fully proved that in every case of mental disease, medical treatment and moral management may be highly beneficial, and although they may fail in effecting a cure, in all cases they tend to the comfort of the sufferer; while the neglect of suitable treatment at the commencement, very much diminishes the chance of recovery.

In another point of view likewise, the study of the human mind is highly important. I mean as regards the connexion between its disorders, and the administration of the law. Medical men are frequently called upon to give an opinion, which affects the life or liberty of an individual, and in that, the happiness, the honour, or the ruin of a whole family; because their opinion in such cases, must in a great measure determine the decision of the jury.

Impressed with the importance of these considerations, and having been led to direct my attention to this subject, during many years; at the same time being fully sensible of the difficulty of the undertaking, I ventured in 1823 to combine in a course of lectures,

the principal topics connected with it: encouraged by the conviction, that well meant endeavours, which might eventually contribute to the advancement of a difficult branch of science, would be received with indulgence.*

In preparing these lectures, I have freely availed myself of every source of information within my reach. I have not hesitated to borrow from books, or to make use of the observations of others; my object being to convey useful information to those to whom it is to be supposed the subjects are new. At the same time I would add, that most if not all of the facts and observations detailed, have been verified by my own experience.

The plan I have usually followed, and now propose to adopt, is in the first place, to give a general view of the brain and nervous system, *the organ of intelligence*, and to take a brief survey of the faculties, or modes of acting of the sane mind. I shall then proceed to consider the insane state in general, as it affects those different faculties, with the distinction between the delirium of insanity, and that of acute diseases. The nosological divisions of the insane state; such, according to the most common division, are Mania or general insanity, Monomania or partial insanity, Dementia or fatuity, Idiocy and the various degrees of mental imbecility. I shall then describe the order in which the phenomena of insanity ordinarily make their appearance, viz. the incipient stage, a

* See Appendix, No. 1.

knowledge of which is of so much importance in the prevention and cure of the disease; the stage of excitement or confirmed state; the decline and convalescence; and the termination in the incurable state. I shall afterwards consider the deviation from the usual progress with the prognosis or probable event of the disease. The next subject which will engage our attention will be the remote causes of insanity predisponent and occasional, moral and physical, the views entertained of what is termed the *proximate cause of insanity*, and the appearances observed after death in the bodies of the insane, more particularly in the brain. I shall then proceed to consider the mode of treatment; first by moral means, including the different modes of removal from exciting causes, and separation from friends and relatives, with the advantages and disadvantages of each; the manner of restraining dangerous patients when absolutely necessary; and the means of employing the tranquil and tractable. And secondly, by medical means, including such as are adapted to the ordinary progress of the disease, as well as those which are suited to the deviations from it; established on principles of induction. I shall likewise mention in what cases empirical means have been recommended, and are admissible. I shall afterwards describe the condition of the incurable (more properly uncured) insane, the treatment applicable to them in their ordinary state, and when they are attacked with other diseases, and shall take occasion to consider several important cerebral diseases, not pecu-

liar to the insane state, but which are frequently found to be complicated with it.

Before entering upon these subjects, a short account of the opinions of the ancients respecting insanity, with their mode of treatment, may form an appropriate introduction to this course of lectures.

ANCIENT HISTORY OF INSANITY.

When man fell from a state of innocence, it is probable that among the many evils which assailed him, loss of reason, was an early consequence of the unbridled desires and violent passions, introduced by that mysterious event; and indeed we find both in sacred and profane writers, notice taken of melancholy and madness at a very remote era.

In the Old Testament, one thousand years before Christ, we read that Saul was tormented by an evil spirit, or a deep melancholy, which was soothed by music. And David himself, when beset by his enemies, is said to have "changed his behaviour before men," and to have feigned himself mad. Some centuries after this, Nebuchadnezzar king of Babylon, was deprived of his reason for a certain time and placed in a state of seclusion, or as it is termed, "driven from the society of men."

In the New Testament, mention is frequently made of lunatics, and some authors, as Drs. Mead and Farmer are of opinion that the "possessed with

devils" so often alluded to, were furious maniacs abandoned to their fate, and suffered to wander at large.

The idea that the mind was possessed, or deranged by the influence of a devil or demon, or that there was in some cases an actual exchange of the soul, seems to have been a prevalent notion among the ancient heathen philosophers. It was a consequence of the doctrine of the transmigration of souls into different bodies after death, and it naturally led the ministers of religion to be entrusted with the care of the insane. Some particular deities were supposed to be more powerful than others in this respect, thus we find that the insane, especially those laboring under melancholy were sent to some temples in Egypt, dedicated to Saturn where imposing religious ceremonies were employed to divert their attention and soothe their troubled minds.*

At a much later period we are informed by M.

* "At both extremities of Ancient Egypt, a country that at that time was exceedingly populous and flourishing, were temples dedicated to Saturn, whither melancholics resorted in great numbers in quest of relief."—*Nosographie Philosophique, par M. Pinel, tom.* 2. *p.* 28.

"Whatever gifts of nature or productions of art were calculated to impress the imagination, were there united to the solemnities of a splendid and imposing superstition. Games and recreations were instituted in the temples. The most voluptuous productions of the painter and the statuary were exposed to the public view. Groves and gardens surrounded these holy retreats, and invited the distracted devotee to refreshing and salubrious exercise. Gaily decorated boats sometimes transported him to breathe amidst rural concerts, the purer breezes of the Nile. In short, all his time was taken up by some pleasurable occupation, or rather by a system of diversified amusements enhanced and sanctioned by superstition."— *Davis's Translation of Pinel. Edition* 1806, *p.* 22.

Pinel that analogous means were employed by the priests of Besançon in France, to cast out demons supposed to possess madmen and melancholics, who were taken to Besançon during the festival of St. Suaire.

Once a year the following spectacle was exhibited in the presence of an immense crowd of spectators, elevated on a spacious amphitheatre. The supposed demoniacs, guarded by soldiers, were brought forth, agitated by all the movements and distortions characteristic of raving madness. The priests in their official garments, proceeded with great gravity to their exorcisms. From a distant part of the church, were heard melodious notes of martial music; upon a certain signal, a flag stained with blood, with the name of St. Suaire inscribed upon it, was brought out, and three times hoisted amidst the acclamations of the wondering multitude, and the roaring of cannon from the citadel, Some maniacs are said by Pinel to have been actually cured on these occasions, but as the means employed were more calculated to excite sudden terror than to produce a permanent diversion of the mind, which appears to have been the object of the Egyptian priests, they were certainly more dangerous, and must have been less frequently successful.

The opinion of Mahometans is, that maniacs have renounced terrestrial objects and are attached solely to celestial ones. Hence in Turkey, establishments for the reception of the insane, are placed in the vicinity of the mosques, and the patients are permitted to

walk about there, provided they do no injury to others.

In Morocco idiots are reverenced as saints, and as the elect of God, "so that" says Windus "all their eminent fools are led about, the people kissing their garments, and giving them every thing but money. After their death, some great man hearing of their fame, makes it an act of devotion to beautify their tombs; or if they have none, to build one over their graves."

But to return to the ancients. In the works of Hippocrates, we find an anecdote concerning Democritus, which leads us to conclude that madness was not an uncommon occurrence in his time. Hippocrates was called to Abdera, to cure Democritus of a disorder which was considered to be insanity. After passing some time with him, he was so much gratified with his conversation that instead of considering him to be mad, he pronounced him to be one of the wisest of men. A remarkable circumstance concerning this Democritus, is, that he dissected animals to discover the cause of madness. When Hippocrates asked him what he was writing upon, he said, "concerning madness, how it comes to be generated in man, and how it is to be cured. These animals which you see, I have dissected for the purpose of enquiring into the nature, and seat of choler. Where bile is too abundant you know, it most commonly causes madness."

The opinion of Hippocrates on madness, may be inferred from some scattered observations in his trea-

tise on Epilepsy, where, in considering the doctrine that Epilepsy, whether combined with insanity or not, was the effect of inspiration, he observes that interfer ence in the ordinary functions of the human system, would be unbecoming the exalted character of the gods. And the disorders ascribed to supernatural agency, being capable of explanation upon natural principles, he conceived it unnecessary to admit their interposition.

I shall not however occupy too much space, by entering into a detail of the writings and opinions of the ancients on this subject, and shall therefore confine myself to giving you a brief outline of their theories, and their mode of treating mental diseases.

The distinction between madness and melancholy was nearly the same as that still adopted by many. They were considered to be but degrees or varieties of the same affection, and were distinguished from phrenitis by the absence of fever. Their seat was supposed to be in the head, either originally affected, or suffering from sympathy; the stomach, liver, uterus, and other organs of the body, being observed to exercise a powerful influence on the functions of the brain.

The ideas entertained by the ancients of the proximate cause of insanity, as depending on the supposed influence of demons have been already noticed.

Hippocrates conceived it to depend upon the supposed qualities of the bile, and its mixture with the pituita. Others, on the existence of bile in a morbid quantity in the blood; others again, on the irritation

the bile excited in the brain, or in the viscera of the thorax and abdomen; where some also conceived that it excited a kind of combustion, attended by vapours sent up into the brain; presenting a variety of causes, without doubt, sufficiently numerous to account for a great variety of mental disorders.

The spleen too, was supposed to exert peculiar influence in melancholy, and the term "splenetic" frequently made use of to express a fretful disposition, and the exaggerated fears of the hypochondriacal, probably derives its origin from this theory.

The doctrine of bilious disorder, however, was not exclusively adopted by the ancients. The influence of general and topical plethora, was admitted by Hippocrates, Alexander Trallianus, and others.

Stricture of the brain, as well as relaxation of that organ, or of the parts more immediately connected with it, were by the sect of ancient physicians called Methodists, conceived to be causes of insanity.

Another theory was founded on the idea that the sentient and intellectual powers had a separate existence, and that there was an actual derangement, or separation of the mental faculties dependent thereon.

Although the notions of the ancients as to the distinction between mental diseases were obscure and confused, being founded on the above mentioned theories of the proximate causes, still their descriptions of these diseases were pretty accurate.

With regard to the treatment, both those who wished to expel bile, and those whose object it was to reduce

plethora, agreed in the propriety of evacuating the bowels. The medicine most generally employed for this purpose was hellebore, or melampodium, so called from Melampus, who is said to have cured the daughters of Proteus by means of it. Its virtues have been celebrated both by the poets and the physicians of antiquity.

Cupping the temples, and abstraction of blood by means of leeches, were much employed. Venesection was also occasionally used, but excessive blood-letting was considered to be dangerous, even in the early stage of the disease. Blisters to the crown of the head, and the occiput, were recommended, as also unctuous applications to the skin.

Bathing in various forms, was much used, to procure sleep, and to allay pain; as were also gentle friction, suspensory beds, gestation, and monotonous music.

From the few scattered observations we meet with in the writings of Celsus and Cælius Aurelianus, upon the subject of the moral management of the insane, unnecessary severity appears to have been employed.*

But little is to be met with in the writings of the Arabian physicians on insanity, and the same may be

* Celsus is by no means an unqualified advocate for harshness, for he says: "Sæpius tamen assentiendum, quam repugnandum est; paulatimque, et non evidenter, ab his quæ stultè dicentur, ad meliora mens adducenda. Interdum etiam elicienda ipsius intentio; ut fit in hominibus studiosis literarum, quibus liber legitur, aut rectè, si delectantur, aut perperam, si id ipsum eos offendit: emendando enim convertere animum incipiunt. Quin etiam recitare, si qua meminerunt, cogendi sunt. Adcibum quoque quosdam non desiderantes reduxerunt hi, qui inter epulantes eos collocarunt."—*Celsus, Lib.* 3, *Cap.* 18.

said of their successors until within the last century.*

Van Helmont being struck with the peculiar sensations produced by monkshood, applied to the tip of his tongue, conceived them to be analogous to certain symptoms of incipient insanity. And it is stated that this led him to reflect on the subject, and to consider what might be the effect of producing strong and unusual impressions in curing mental delusions. He therefore attempted to produce this effect by prolonged immersion in cold water, until there was incipient suspension of the intellectual functions. He mentions the case of a man cured by plunging himself into a pond, in which he remained until he was nearly drowned.

Boerhaave also advised this practice to be pushed so far, as almost to drown the patient; a practice highly imprudent and dangerous, and one which it is to be hoped will meet with few followers in the present day; although Dr. Leuret, of Paris, in a late publication, has recommended the employment of a very powerful and long-continued douche, with the view of dispelling delusions.

* Meibomius says, that Rhazes, an Arabian physician, orders, that when a person labours under "love madness," and nothing else will do, he must be tied up, and then soundly thrashed, and beat well with the fists; and this again and again. "One swallow does not make a summer," and therefore if one thrashing does not do, give the patient another.—Another writer agrees with him, and says:—"if the patient be a young man, let his posteriors be well flogged, and if he be not quiet then, put him into the bottom of a tower, with some bread and water, until he begs pardon for being mad, and becomes sane." —*Elliotson's Medicine, 2nd edition, p.* 637.

With regard to the custody of the insane in former times, we are much in the dark; but that their condition was very miserable, and that they were much neglected, cannot be doubted. It is most probable that many of them were allowed to wander about and to perish, and that the most dangerous were confined in dungeons; whilst not a few were burnt as sorcerers and witches, or as possessed by the devil. Hector Boethius, in his account of the ancient Scots, informs us that, in order to obviate the propagation of madness and some other diseases, as epilepsy, leprosy, and gout, the male was emasculated, and the female secluded from the other sex, or if discovered to be pregnant, she was, with her offspring, burnt alive!

Timkowski, in his Russian mission to China in 1820, tells us that an insane person in Mongolia is given in charge to the commander of ten men, in the next squadron, and if he make his escape through the carelessness of his keepers, they receive one hundred stripes; from which we may infer that the treatment of the patient is not of the mildest description.

The situation of the insane appears in England to have excited sympathy about the middle of the sixteenth century, and soon afterwards in France and Holland. In 1553, we find that the priory called Bethlehem was given by Henry VIII. to the city of London, and assigned for the care of the insane. The number of patients rapidly increasing, it was rebuilt on a more extensive plan. Again, about thirty-five years ago, it was built in its present situation, and on

a larger scale, where also considerable additions and improvements have lately been made.

About the middle of last century, Bethlehem Hospital being found inadequate, St. Luke's Hospital was erected by voluntary contribution.

A few years before this, Dr. Jonathan Swift had founded the asylum for lunatics and idiots in Dublin, of which he himself was afterwards an inmate while in a state of fatuity.

In France, by the persuasion of the celebrated philanthropist Vincent de Paul, establishments for the reception of the insane were formed in the seventeenth century. Afterwards, towards the close of the eighteenth century, the hospital of Bicêtre was appropriated for male lunatics, and placed under the care of Dr. Pinel, while the Salpêtrière, under the direction of Dr. Esquirol, was fitted up for females.

Early in the seventeenth century, the Dutch also turned their attention to this subject, and in 1630 a lunatic hospital was built in Amsterdam at a considerable expense. At Gheel, a large village in the east part of Brabant, there has existed, according to the tradition of the inhabitants, an asylum for upwards of one thousand years. In this place, which is situated in the centre of extensive heaths, enjoying pure air, there were, when I visited it in 1826, about two hundred insane persons of both sexes, lodged in the houses of farmers and villagers. In the village there is a handsome church, dedicated to St. Dymphna, a female saint of Irish parentage, by whose interces-

sion their friends hope that the insane may be restored to reason.

Notwithstanding these and other humane measures adopted in different countries, they fell far short of providing effectual remedies against great abuses, which, until a very late period, have been found to exist.

The causes of many of these may be traced to the concealment and mystery with which those who had the management of the insane formerly endeavoured to envelop the subject. This no doubt contributed in a great measure to keep the nature of those diseases from being more generally known, and consequently many abuses remained, solely from the circumstance that those to whom the custody of the insane has been committed, were persons unacquainted with what might, and what ought to have been done for their relief. For until the last century, as I have already mentioned, but little attention had been paid to the subject of mental diseases, and information regarding them, except what may be found in the ancient authors, might have been sought for in vain.

The subject of insanity, difficult in itself, had been rendered more obscure and complicated by the theories of metaphysicians,* more attention having been paid to

* The Arabian physicians adopted the speculations of their Greek and Roman predecessors; exercising the right, no doubt, of modifying them according to circumstances so as to render them accordant to their own prejudices, and subservient to their temporary credit and consequence. The practical observation and beautiful simplicity of Aretæus and Celsus were now lost

the theory of mental operation, than to acquire a practical knowledge of mental diseases, which can only be learnt by a careful observation of them; whilst the agitation and abusive language, the nakedness and filth of many of these unhappy creatures, gave a distaste for this branch of science to the most ardent inquirers. It was likewise conceived that they were insensible to kindness and attention, and were therefore better kept in order by fear and by harsh treatment: that close confinement was not injurious to their health, and that they were capable of enduring cold and hunger with impunity. It has even been recommended, at a period not very remote, and by high medical authority,* to inspire maniacs with awe and dread by stripes and blows; and the author of a recent publication on insanity goes so far as to recommend the whip, as in some cases absolutely necessary and beneficial.

There can be no doubt that these erroneous opinions have subjected the unfortunate sufferers to a much greater degree of restraint than has been necessary; prevented their complaints from being heard or attended to; and, in a great measure, have consigned

amid the disputations of medical sectarianism and the farago of ridiculously complicated formulæ.—*Davis, Op. cit. p.* 45.

* "This awe and dread is therefore, by one means or other, to be acquired; in the first place by their being the authors of all the restraints that occasionally may be proper; but sometimes it may be necessary to acquire it even by stripes and blows! The former, although having the appearance of more severity, are much safer than strokes or blows about the head!"—*Cullen's Practice of Physic*, 1796, *vol.* iv., *p.* 163.

them to the direction of ignorant persons, whose harsh conduct has rather tended to fix, than to mitigate, the disease.

In opposition to such opinions, the late Dr. Esquirol pathetically pleaded the cause of the unfortunate victims of insanity, in the following appeal:—"No one can promise himself that he shall not be struck by a malady which seizes its victims at all ages, in all ranks, and in all conditions of life. Those for whom we speak," says he, "are the most interesting members of society, too often the victims of the prejudices, the injustice, and the ingratitude of their fellow-creatures. They are fathers of families; faithful wives; upright merchants; skilful artists; warriors dear to their country; distinguished men of letters; they are persons of ardent and sensible minds,—and yet these same individuals, who ought to be the objects of peculiar interest,—these unfortunate beings, who labor under the most dreadful of human afflictions, have been treated worse than criminals, and reduced to a condition below that of the brute creation."

For the better management of the insane poor in this country, a legislative enactment was passed in 1808, which required the numbers to be returned by the parish officers. These lists, though defective, showed that many more individuals were suffering under insanity than had been calculated upon; and further inquiry ascertained, that a large proportion were placed under a state of painful and unnecessary restraint in prisons, workhouses, and places professedly

established for their cure; that gross abuses prevailed in their treatment: and that some of the places where they were confined were much too crowded.

But we may now look to a brighter prospect. Of late years much has been done to remedy these evils, and to ameliorate the condition of these unfortunate beings. The subject of mental diseases has begun to receive that attention it so much requires. Many excellent establishments for the reception and treatment of the insane, have been completed in different counties, and are now under the charge of medical men of acknowledged science and experience, and every year is adding to their number. The magistrates of many populous counties, and Parliament itself, has been occupied in devising measures for the still better management of the insane. Societies for improving their condition have been formed; and a system based on the principles of humanity and kindness introduced.

Even the improvement of the mental faculties of idiots has been undertaken. A promising institution for this purpose has been formed by Dr. Guggenbühl, in the canton of Berne, Switzerland, an account of which is given by Dr. Twining.* And in several institutions, in this country, useful information, and even trades, have been acquired by their inmates.†

* In this country also, an eminent philanthropist, D. W. Wire, is now about to form an asylum for idiots.

† To Pinel we are indebted for the introduction of the humane system of treatment now so generally adopted. Great credit is also due to Dr. Charles-

From such promising sources of information and of improvement, much may be expected. A laudable emulation has been elicited in the principal countries of Europe, and in America. The spirit of improvement has gone forth; we may now with confidence look forward to progressive advancement, and we may expect a more successful issue in the treatment of these disorders, by cultivating a knowledge of the physiology and pathology of the nervous system; by assiduous and careful observation of the human mind in a state of health and of disease; and by an improved and enlightened moral management.

worth, of Lincoln, for his praiseworthy endeavours to lessen or remove all restraint; although, by the generality of medical practitioners of recognised eminence, this system appears to have been carried to an unreasonable extent by some of his followers.

To Sir William Ellis is due, in a great measure, the useful employment of the insane, and the intrusting them with tools; first at Wakefield, and afterwards at the Hanwell asylum.

Lectures on the subject of insanity were first given by my father, Sir Alex. Morison, who was encouraged to do so by his Royal Highness the late Duke of York, when he had the custody of his father, George III.

ANATOMY.

CHAPTER II.

THE BRAIN AND NERVOUS SYSTEM.

THE nervous system in the vertebrate animals, including the mammalia, birds, amphibia, and fishes, consists of an organ of a glandular appearance, called the brain, with a long cord, called the spinal marrow, attached to it, both of which are secured in bony coverings; and of nerves issuing from, or connected with both,* which are distributed to the sentient surfaces, and contractile parts of the animal.

* In the lowest class of animals, the Infusoria, the tissues appear to be homogeneous. There seems to be an absence of cognizable nervous matter. Analogy, however, leads us to conclude that there is a nervous system in these animals, when we see them discriminate and seize their prey; contract and bend themselves in every direction; appear conscious of each other's approach: and, in fact, perform movements with as much regularity and precision as animals which undeniably possess a nervous system. In the higher tribes, we find nervous matter assuming regular and determinate forms. We perceive ganglionic centres arranged exactly where they are required; and in the centres of these ganglia we find particles of grey matter; if great locomotive powers are necessary, ganglia are placed in the neighbourhood of the organs

In man, and in those animals who approach him in form, the brain is of an oval figure, and is surrounded by coats or membranes of different firmness and density. Externally, is the dura mater, dense and thick, and closely adhering to the bones of the skull; this membrane also, by a number of processes, gives support to the brain, and prevents undue pressure of one part on another. Next comes the arachnoid coat, or serous investing membrane. This membrane is very frequently diseased in insanity; so much so, indeed, that M. Bayle, in his treatise on the subject of insanity, has referred all such cases to disease of the

destined to serve this purpose; if powerful digestive organs are required, nervous energy is supplied by an assemblage of ganglia round the digestive apparatus. In some, a considerable portion of nervous matter is placed above the æsophagus; and may be considered as analagous to the brain of the higher animals. In this way we may investigate until we arrive at the vertebrate classes where we find cerebral lobes and a cerebellum. Now in proportion as we ascend in the scale, we observe increased development of these portions, and a greater amount of intelligence. The surface of the hemispheres becomes convoluted, and the arrangement of the white portions increases in complexity. In birds, the brain and spinal cord are developed after one uniform type—in fishes, the several portions of nervous matter are placed one after the other; but here they are placed one over the other, forming one mass: the cerebral hemispheres covering all these portions supplying the organs of the senses. The hemispheres have not yet assumed the convoluted appearance; but in the interior they present collections of cineritious matter, through which the fibres of the spinal cord pass. In mammalia, the most perfect specimen of which class is man, we find the hemispheres assuming a convoluted appearance; and the number and depth of these convolutions increasing as we ascend from the lowest to the highest. They are, comparatively speaking, absent in the rat, mouse, and rabbit; more distinct in the whale and dolphin; still more so in the camel, stag, and sheep: and very strongly marked in the tiger, dog, and monkey tribes. Besides this peculiarity, the distribution of the fibres of the hemispheres becomes more and more complicated.

arachnoid. Internally, is the pia mater, which closely adheres to the surface of the brain, following all its sinuosities, and entering into all its cavities, which it lines. By it, the minute blood-vessels are conveyed to the nervous substance.

The brain has at all times been an object of interesting inquiry, though it is still, however, the organ of which we know the least; not only of its intimate texture and mode of action, but even of its form and disposition. There is, indeed, no organ of the body of which the description is more obscure, and more difficult to comprehend; for, although anatomists have assiduously and minutely dissected it, still they have not been able to obtain a corresponding knowledge of the functions of its different parts.

This organ is one of the earliest formed; it is situated in a bony case, called the cranium, or skull, composed of several pieces, forming a solid vault, which, at the same time that it allows of the increase of its contents, defends them from external shocks and injuries, and from the pressure and variations of the atmosphere. Its form, which in the adult corresponds to the cavity of the cranium, is that of an ovoid, slightly depressed at the sides, the largest extremity being turned backwards, and occupying the occiput; while the lesser corresponds to the forehead. The upper surface is convex and rounded; the under is marked by protuberances, by fissures and by depressions, corresponding to the hollows and eminences on the base of the cranium: its whole surface presents

waving convolutions, fissures, and irregularities, more or less deep.

The size of the brain in man is considerable; though its proportion, relatively to the other parts of the body, varies according to the age. At birth, it forms from one-eighth, to one-sixth part; while in the adult, it forms about one-thirty-fifth part of the weight of the body. Its consistence also varies with age; in the fœtus being almost fluid, and resembling an opaque jelly. It has more consistence in the infant, and still more in the adult; but it always remains soft and pulpy, altering its shape by pressure. Its specific weight is estimated in the adult at 1.300 to 1.000; sensible differences, however, in this respect, as well as in consistence, are produced by age, by disease, and other causes.

In the brain we distinguish a white, or cream-coloured portion, called medullary, which constitutes the greatest portion of the organ, and occupies the interior and the base; it has more firmness and density than the cineritious portion, which is of a greyish red colour, depending probably on the number of minute blood-vessels contained in its structure. The latter forms a thin layer upon the convolutions of the surface of the brain, although it is found in other parts of it mixed with medullary substance.* The cineritious portion of the brain contains more fluid

* Notwithstanding careful microscopico-chemical investigations on the subject of nervous matter, nothing is yet decided respecting the topical, qualitative relations of differences of structure to those of function.

than the medullary portion, being reduced by desiccation to one-fifth of its weight; whilst of the medullary there remains two-fifths.

The brain receives a large proportion of blood, and has a peculiar mode of circulation, expressly calculated, it would appear, to render the supply of that fluid regular and equable. The arteries form several curvatures before entering the cranium: soon after their entrance within it, a free communication is formed between them: instead of at once entering the substance of the brain, and being therein subdivided, as they are in other viscera and organs of the body, they spread themselves on its surface, dip down between its subdivisions, and, after many successive branchings, terminate by minute filaments in the cineritious part, and penetrate into the interior of the organ. The veins also of the brain have no valves as the veins in other parts have; they have more numerous communications, they do not accompany the arteries in their distribution, nor form by their union branches and trunks successively increasing, as in other parts, but terminate obliquely in large sinuses, so that regurgitation of their contents is prevented. The sinuses themselves also are contained within the strong layers of the outermost investing membrane. All these peculiarities appear to be specially designed to prevent irregularities of the circulation in anyway affecting this important and delicate organ.

Although lymphatic or absorbent vessels have not been actually demonstrated in the brain, their exist-

ence is highly probable, from the great number of absorbent glands situated around the head and neck; and also from the fact, that blood has been effused into the medullary substance and removed.

The brain is divided longitudinally, by a beautiful provision, to guard against the weight of the one division or hemisphere pressing on the other, termed the falx-cerebri; it is likewise divided into three portions, termed respectively, cerebrum, cerebellum, and medulla oblongata. The most considerable of the three is the cerebrum, or brain, properly so-called, and occupies the greater portion of the cranium, from the forehead to the occiput. The second portion, or "little brain," is not more than the tenth, or eleventh part of the size of the cerebrum, and occupies the inferior portion of the occipital region. Here again, in the tentorium, we witness another proof of the wisdom of the Creator, in providing against pressure and injury to the cerebellum, from the super-incumbent weight of the cerebrum. The third portion of the brain is called the medulla oblongata, and is formed at the base of the other two, by the collection of the several fibrous bundles which proceed from them, and which are termed crura: inferiorly, it becomes prolonged into the spinal marrow.

Connected with these parts are a great number of whitish pulpy cords, of a fibrous texture, termed nerves; exhibiting, when viewed under the microscope, a similar appearance to that of the brain. These nerves are distributed to every organ of the body, and

are inclosed in sheaths of membrane to their extremities, a continuation of the membranes of the brain.

The nerves issue in pairs, and, according to Gall and others, take their rise in the cineritious portion: he considers the medullary portion of the brain to consist of various systems of fibres, which spring from the grey or cineritious portion; are variously united, and are in communication with the spinal cord and nerves; that the cineritious parts in the interior of the brain are points of increase for these fibres, and from which they extend their ramifications.

When the brain is hardened in alcohol, it is seen to be of a fibrous nature; and in order to demonstrate the disposition of them, Gall directs us to commence the dissection of the brain and spinal cord with the latter, and the medulla oblongata, and thus trace the fibres up into the brain. These fibres all proceed on the same side of which they become cerebral portions, except those of the corpora pyramidalia, which constantly cross or decussate; this arrangement being conceived to account for the loss of power of motion in paralysis, being usually on the side opposite to that in which the cause of the disorder exists. He gives the name of diverging fibres, to those which he traces from their origin to the bottom of the convolutions; and that of converging fibres, to those which come out of the convolutions, derived from the cineritious substance on their exterior, and which, converging, form what is termed the corpus callosum, and the other commissures or medullary unions. He

conceives that the cineritious substance is the part of these organs in which impressions are finally received, or with which the phenomena of intellect are immediately connected; while the medullary substance appears to him to be the medium of transmission only, calculated to convey to one part the influence derived from the other.*

* The peripheral filaments of the nerves on the skin and internal mucous membrane collect into twigs, the twigs into branches, the branches into boughs, and these into one main stem—the spinal marrow. This rises in the vertebral column to the foramen magnum, where, for some space, it is called the medulla oblongata, which divides above into four so-called crura, the two anterior of which, arch into the cerebrum; and the two posterior, into the cerebellum. The first, which, with their overlaying mass constantly increasing above and anteriorly, form the two hemispheres of the cerebrum, leave, by their vaulted curvature, interstices and other lateral ventricles, and swell out into various eminences, the names of which are better known than their destination. The medullary crura of the cerebellum form together a nucleus, which branches out under the form of what is called the arbor vitæ. Posteriorly, the cerebellum enlarges into what is called the vermiform process. Outwardly, it forms, as it were, two hemispheres; above, and in front, it is connected with the corpora quadrigemina of the cerebrum, below, and in front, with the crura of the cerebrum, and by means of the pons itself. Externally, it has straight furrows, which arise from the investing vascular membrane.

The proportion of grey to the white substance decreases with the increase of age. The former is composed of overlaying spherules, the latter of three sets of fibres; the first set leads from the medullary to the cortical substance, the second unites the two hemispheres, the third unites individual portions of the same hemisphere. Above, with the optic thalamus on each side, begins a column which forms the posterior part of the medulla oblongata and spinal marrow, and terminates where the sensitive nerves are given off. With the corpus striatum of each side, a second column begins, which forms the anterior part of the medulla oblongata and the spinal marrow, and terminates where the motor nerves are given off. According to this structure, and the result of some dissections, it is affirmed that the first set of fibres of the medullary portion conveys the sensitive impressions to the cortical portion; that the second and third row are the medium of the functions of the hemispheres, and that the cortical substance affords the necessary condition for intellectual operations;

The nerves attached to the lower parts of the brain are chiefly, though not wholly, appropriated to the organs of the external senses. Those issuing from the spinal cord, have all a double origin from it, an anterior and a posterior root: the anterior portion being destined to afford the power of motion, whilst the posterior, which has a ganglion formed upon it immediately after its separation from the spinal cord, is appropriated to the sense of feeling, conveying sensation to the parts to which it goes.

The system of nerves called the intercostal, or great sympathetic nerve, is connected with the brain and spinal cord. It has numerous small ganglia formed upon it, and its various divisions form a number of interlacements, or plexuses. It is distributed over all the viscera of the thorax and abdomen, and is the medium of general sympathy of these viscera with each other and with the brain. At the same time, by this arrangement, the vital motions are withdrawn from the influence of the will.

The doctrine that has generally been entertained is, that the spinal cord issues from the brain, and that the latter is the common origin of it, and of the

that voluntary motions proceed from the latter, and are conveyed by the motor column to the muscles; that involuntary motions, arising from the irritation of the sensitive column, are reflected on the motor column, so that in the former the irritation is physical, in the latter psychical. These affirmations, observes Feuchtersleben, contain, according to Bennett, the summary of our present knowledge of the physiology of the brain; and, in fact, the more detailed opinions, which may be found in Burdach, Carus, Fleurens, and others, atttractive as they appear, are all of them only hypothetical.—*Medical Psychology, Lond.*, 1847, *p.* 101.

nerves. An opposite opinion is now held, however Tiedemann, from observing the gradual formation of the nervous system in the fœtus, in which the spinal cord is formed before the brain, favours this opinion, which is adopted by Gall and others. They consider the brain to be an appendage to the spinal cord; a large ganglion connected with it; that the different parts of the brain, of the spinal cord, the cerebral nerves, and the nerves of the thorax and abdomen, have no common origin, but that the various parts are only brought into communication with each other. This opinion derives confirmation from the analogy of acephalous monsters and the inferior animals, in which, as we descend the scale, we find the brain disappearing before the spinal cord.

With regard to the relative size of the brain in man and in other animals, as compared with the rest of the body, it has been observed by Dr. Sömmering, who has particularly examined this subject, that the proportion which the mass of brain bears to the bulk of nerves issuing from it, is greater in man than in any other animal; and the nerves, comparatively with its bulk, the least of all animals whatever.

The next subjects deserving our attention, are those of the fabric of the nervous substance, and the source of the nervous influence: subjects of the most interesting nature, which have long exercised the ingenuity of physiologists. With regard to the first of these, two opinions have been held: first, that the nerves are solid capillaments, operating by oscillation

or vibration, like the strings of a musical instrument; the other, and more plausible one, that these nervous fibres are minute hollow cylinders, conveying, or pervaded by an extremely subtile fluid. The latter opinion is supposed to have received strength by the discovery of the circulation of the blood, which admits the existence of hollow vessels too minute to be traced by the senses. At the same time, there is no difficulty in conceiving that solid fibres may transmit an extremely fine, ætherial fluid, such as the nervous fluid may be supposed to be; since we know, from experiment, that electricity (which, by-the-way, possesses wonderful influence upon the nervous system) is transmissible by the most solid and ponderable substances.

As to the nature of the nervous fluid, or influence itself, and the source whence it proceeds, no opinion has yet been offered which has more plausibility than that of Dr. Willis, who, considering that the medullary and cineritious substances of the brain were alternate, conceived that the nervous fluid is generated in the cineritious substance, and distributed by the medullary matter; and that the brain is a secreting organ of a very peculiar description; that an extremely subtile fluid proceeds from it, and maintains a communication between the brain and every part of the body; and that this fluid is inherent in the nervous fibres, in a manner somewhat similar to that in which the magnetic fluid is inherent in iron.*

* It is an important remark of Carus, that, as the galvanic current depends on the immersion of zinc and copper in acids, so that of innervation depends

What this nervous fluid really is, we cannot explain, although it has been, with much plausibility, considered to be a modification of electricity; an opinion supported in some degree by the experiments of Volta, Galvani, and others; and also from some experiments made on a criminal executed at Glasgow some years ago, in whom certain nerves were laid bare, and a galvanic instrument of great power made to act upon them. The nerves were so much excited, that the corpse started up, struck a bystander with one of his arms, while his face was much distorted by convulsive movements.*

In the experiments of Le Gallois and Phillips, the nerves of the par vagum, upon which the action of the stomach depend, were divided

on the reciprocal action of blood and the parenchymatous nervous fluid; and that as the development of galvanism is exhausted by too great an oxydation of the pairs of plates, so also is that of innervation, when, in the process of respiration, oxydation has exceeded a certain degree. The arterial blood is, therefore, in respect to quality, the normal stimulant of the whole nervous system, so long as it remains normal itself in respect to quantity; venous blood is directly, and arterial blood indirectly, inimical to nervous vitality.

* These positions, connected with experiments on the heads of decapitated criminals immediately after execution, even leads to a conjecture that in the brain, separated from the rest of the body, there still remains for a time sensation, nay, consciousness; a question which caused long and lively discussion *pro* and *con* among the physiologists. The experiments, which consisted in compressing and pulling the spinal marrow still attached to the brain, with the fingers or with instruments, throwing the head backwards and forwards, applying galvanism, and irritating the pupil by light, caused distortions of the muscles of the face and the eyes, and seem, therefore, to have justified the above conjecture. The strongest of the assertions that have been made is, that the *name* of the beheaded person being pronounced aloud in the ear of the dissevered head, the closed eyes opened, and turned to the side whence the sound came!

in two animals, to both of which some food was subsequently given. One of these animals was left untouched, and then killed after a certain interval, and the food, upon examination, found to be indigested. Through the stomach of the other animal, a galvanic current was made to pass, and upon examination, it was found that the digestive process had been carried on, as if the nerves had not been injured. It is also worthy of remark, that in the gymnotus electricus, which exhibits so strong an electric power, we find an unusually large nervous apparatus, leading to the belief that the power they possess of exhibiting such wonderful phenomena, is dependent on the nervous system.

There are, moreover, various facts which are familiar to all, that render it probable that the electric fluid is essentially connected with the animal frame: for instance, electrical sparks will dart from hair when combed in frosty weather, and from a silk stocking when pulled off.

To account for the different effects of the nervous influence, different modifications of it are conceived, which, it is supposed, may be effected by the action of different parts of the brain, or by the nerves themselves. That the nervous fibres of motion and sensation convey differently modified nervous fluid, we have reason to conclude, from what has been already stated; and also, because in palsy we find that the muscles of a limb are sometimes deprived both of sensation and motion, sometimes of sensation alone,

and sometimes also of motion alone. When we examine the structure of different nerves, however, we are not able to observe any appearance that can explain the variety in the effects dependent on them.

With regard to the relation which the different parts of the nervous system bear to each other, we find that there exists a communication between the various parts of the body and the brain, by means of the nerves; for if all the nerves leading to a part are strongly compressed, or cut through, an injury done to the part is not felt. At the same time, we find that although the nerves of any particular part are injured, yet the capacity of sensation may be impaired or destroyed by injuries done to the brain itself.

In this production of sensation, then, we have three stages: first, the impression made on the extremities of the nerves; secondly, the transmission of this along the nerves; and thirdly, the reception of it by the brain, occasioning a certain change therein. Hence the conclusion that the brain is the sensorium commune, or organ of sensation, with consciousness, and of voluntary motion; we are, however, totally unable to explain the connexion between the external senses and impressions, the movements of the nerves, and the mental perception consequent thereon.

CHAPTER III.

THE INTELLECTUAL PRINCIPLE.

Two opinions have been held respecting the connexion subsisting between the brain and nerves, and the phenomena of mind: the first, that it may exist, although the body be destroyed—that it is independent of the body, and immaterial. The second is, that mind is the result of organization; in other words, that nervous substance, under certain conditions, necessarily produces the phenomena of mind, in the same way as the different viscera of the body produce their respective secretions.

We derive evidence in favour of the former opinion, that mind exists independently of the body.

First, from the power we possess of conceiving their separate existence, and in the concurrence of our reason with the belief that the mind and the

body are arbitrarily connected; and that a provision is made in the formation of our corporeal frame to render it a suitable receptacle for the mind.

SECONDLY, from the well-known fact that images in a dream are frequently believed to be as real as those perceived by the senses when awake.

THIRDLY, from the consciousness of identity that accompanies us through life, although we know that the particles of the body are continually changing by the processes of absorption, secretion, and excretion; so that, in a few years, the body becomes wholly changed and different in substance, although not in general appearance.

FOURTHLY, from the general belief, desire, and expectation, in all stages, of a future state; and in the impression we have of being accountable for our conduct.

There is, then, not only no absurdity, but on the contrary, a very high degree of probability, derived from unassisted reason in the supposition that the mind may survive the destruction of the nervous substance with which it is connected; but it is the Word of God which makes it certain, and which gives us the assurance that our spiritual existence is not to cease in the mere decay of the bodily elements which surround us.

The organ through which the mind acts is material, subject to different kinds and degrees of irritation, modified by the particular organ or part of the body that may be afflicted: sometimes primarily dis-

turbed, by causes acting directly upon the brain, as, in the instance of a blow on the head, causing fracture of the bone, and pressure of the brain; sometimes also secondarily affected, by irritating causes, originating in other parts of the body, and acting by sympathy, as in the state of stupor or convulsion which a tooth, irritating the nerves of the gums, frequently produces in children.

Besides the facts already mentioned, tending to confirm the doctrine that the brain and nerves are the material organs of the phenomena of mind, the instruments of communication between the mind and body, as well as between the body and external objects, the following facts are adduced from the observation of physical phenomena.

First, in proportion as the brain is developed, the intellectual faculties manifest themselves; they increase, diminish, or change, according as the state of the brain appears vigorous, debilitated, or otherwise changed. The brain of a new-born child, for example, seems to be a soft mass, exhibiting much less distinction in regard to colour, and general appearance, between the cineritious and medullary substance, than at an after period. By degrees, the brain becomes fitted for being the organ of the mental powers; the exercise of recollection, or active memory, takes place, together with that of judgment, producing conclusions of good to be obtained, or of evil to be avoided, by certain muscular movements; and voluntary motion supersedes that which was before instinctive. In

the prime of life, the powers of the mind are like those of the body, in full vigour and force. In old age, when the powers of the body begin to fail, the mind seldom retains for any great length of time the full energy of the preceding period; the memory, in particular, becomes much impaired, and the other mental faculties frequently fail.

Secondly, the size of the brain, as already observed, more particularly as regards the superior and anterior portions, appears to bear a relation to the degree of intelligence. Man alone possesses the forehead fully evolved; animals in general (a few of the ape tribe excepted) having the cranium nearly on a level with the root of the nose. Very frequently also, although not always, we find that idiots have a forehead small, and sometimes much depressed.*

Thirdly, various causes acting directly upon the brain, as blows producing compression or concussion; inflammation in the membranes, or substance of the brain; effusion of blood, or other fluid, on the surface, or into the structure of the brain; irregular circulation of the blood, and the whole class of what are called nervous diseases, frequently disturb or suspend the exercise of the intellectual faculties; and if the cause be soon removed, before disorganization has been produced, these faculties are again restored.

Abernethy mentions a case which illustrates this in a

* According to numerous observations, a brain under fifteen inches in circumference is always that of an idiot; the circumference being usually from seventeen to twenty-three inches.

striking manner. In consequence of a blow, a portion of the skull was depressed; and a state of unconsciousness produced. The depressed portion of the bone being raised, and five ounces of extravasated blood discharged by puncturing the dura mater, the patient suddenly rose up in bed, as if aroused in a fright from a deep sleep, and presently recovered his faculties.

Richerand also relates the case of a woman who had an extensive caries, which had destroyed a part ot the cranium, so that the brain was covered by the dura mater only. After wiping away the sanious matter covering the membrane, he, by way of experiment, gently pressed the dressing downwards, putting questions to her at the same time. The patient, who was replying rationally to his questions, suddenly stopped in the middle of the sentence, though her respiration and circulation continued as before. On the removal of the pressure, she said nothing; and on being asked whether or not she remembered the last question put to her as the pressure was being applied, she answered in the negative. Another case may be mentioned, in which a portion of the skull had been removed, and a handkerchief allowed to fall upon the exposed part. At first, consciousness was not taken away, but insensibility gradually came on, as the whole was allowed to drop upon it.

Fourthly, the well-known diseases of palsy and epilepsy, by impairing the nervous system, seldom fail to weaken the mind, and produce a state of mental imbecility. But should the disease of the nervous

system subside, the mental faculties may resume their energy as the health improves.

Various objections have been made to the conclusion that the brain is the material organ of the manifestation of the phenomena of mind: one of them is, that the brain has sustained considerable injury and loss of substance, without perceptible alteration in the intellectual faculties. In reply to this objection, we might say that a similar one equally applies to other organs, the office of which is well ascertained. For we find that all functions, exercised by organs of which there are pairs, continue to be performed, provided one of them remains sound. It has already been mentioned that the brain is composed of two hemispheres, united by commissures or medullary unions, and if we admit the supposition that these hemispheres are united in the performance of the mental functions, it is easy to conceive that the injury and loss of substance of part of one of the hemispheres, may be compensated by the increased activity of the other.

The disease of water in the head has likewise been adduced as a proof that the manifestations of mind are not dependent on the brain. In this disease, however, being dropsy of the ventricles, the convolutions of the brain are not destroyed, but merely unfolded and expanded, and the distention of the nervous substance being produced in a very gradual manner, may be the reason why the powers of the organ are not abolished; besides, we are not to forget that these

persons seldom live long, and are for the most part weak in their intellect.

That one of the phenomena of intellect, namely, volition, may exist independently of the brain, has been inferred from the movements of acephalous children. But in answer to this, it may be observed, that true acephali die soon after birth; that there generally exists a nervous bulb formed by the medulla oblongata, from which the greater number of the cerebral nerves originate; and, therefore, it is not very surprising that a brainless child should live a short space of time, and perform some movements. Scarpa, and some other physiologists, however, explain this by supposing that the spinal cord and the nerves possess all the properties of the brain, and are independent of it as to sensation and volition, and are therefore capable of performing its functions for a limited period.

Various conjectures have been offered respecting the particular seat of intellect. Willis considered the cerebrum to be the organ of both sensation and volition, and the cerebellum the organ of the involuntary and vital motions. Rolando and Fleurens, from experiments made on the effects of disease in the different parts of the human brain, consider the cerebrum to be the seat of sensation and of intellect, and the cerebellum to be that of volition and motion.

The sensorial power, according to what is termed the doctrine of the French school, is appropriated as follows:—

To mental operations, the cerebrum and the cerebellum. To the senses of hearing, seeing, smell, and taste, the medulla oblongata. To voluntary motion and general feeling, including the sense of touch, the medulla spinalis. To the thoracic and abdominal viscera, the sympathetic nerve.

Des Cartes, in his treatise on the passions, gives it as his opinion that the mind exercises its functions in a small gland, placed over the communication between the cavities of the brain—that the slightest movement in this gland affects the animal spirits, and that it is equally susceptible of the movements of these spirits—that the mind has as many different perceptions as there are different movements in this gland—that, by the influence of the mind exerted upon it, the animal spirits are impelled into the pores of the brain, whence, by the nerves, they are carried to the muscles, or contractile parts of the body. Des Cartes founds his opinion upon the fact, that all the other parts of the brain are like the organs of the senses, double; and as we can have but one single idea of any object at one and the same moment, it is necessary that there should be one part in which both images, coming from double organs of the senses, meet or unite, before reaching the mind, to prevent the confusion of ideas which the receipt of two objects, instead of one, would produce; and that there is no other part in the whole body where it is possible for them to be so united, except in this very gland.

The other theories on this subject, that may be

briefly alluded to, are those of La Peyronie, who places the seat of the mind in the fornix; Richerand, in the annular protuberance; Willis, in the corpora striata; Sömmering, in the fluid of the ventricles; Digby, in the septum lucidum; Lancisi, in the corpus callosum; and Van Helmont, in the pylorus ventriculi. D'Assigny, in his treatise on memory, conceives the seat of this faculty to be the cerebellum, because persons who have a capacious memory, have the hinder part of the head larger than ordinary; and that the lateral ventricles are the seat of imagination and reason.

Camper, about the year 1770, appears first to have considered the intellectual faculties to be connected with the anterior portions of the brain, and he states the two extremes, of what he has termed the facial angle, to be 70° and 100°; namely, from that of the Negro, to the fully-developed forehead of the Grecian Apollo.

Gall, from observing prominence of the eyes to be connected with excellence of memory, conceived that other mental faculties might have external indications also; and that the manifestation of these faculties, and the influence of appetites and passions, are connected with the comparative proportions of the different parts of the convolutions of the brain—that these convolutions are to be considered the expansions of internal nervous bundles, the size of which he thought could be ascertained, although the organs be not confined to the surface—and that the greater or less

energy of those faculties and propensities, were indicated by the proportions of corresponding parts of the skull. He pointed out, in the brain of man and of other animals, the organ of each propensity, feeling, and intellectual power, amounting, according to him, in man, to thirty-three in each hemisphere. Some of his disciples, however, have added considerably to this number.

Walker, on the other hand, says that he can discover no vestige of any corresponding organization for the thirty or forty little functions of the craniologists. According to him, memory and association are connected with the convolutions; the combining faculties, chiefly with the anterior and superior part of the brain; the comparing faculties, with the middle and inferior part; and the determining faculties, with the posterior portion of the brain and cerebellum.

Dr. Scipio Pinel has lately published a work, in which he contends that the sensations (the source of the other mental faculties) are impressed, or engraved on the lamellæ, or leaves of the convolutions of the whole surfaces of the hemispheres, in such a way as to be capable of being found again, and revived, even after the lapse of many years—that they are engraved on these lamellæ, on which they remain like the images on plates subjected to the daguerreotype process, and perhaps by means of a very analogous mechanism. The cineritious portion, he regards as simply an organ of nutrition of nervous substance.

In reference to all these preceding opinions, I would

observe, that it seems, at first sight, a probable-enough conclusion, that divisions so well marked as those of the cerebrum, cerebellum, and medulla oblongata, may be appropriated to perform distinct functions. Even this, however, as far as I am aware, has not yet been satisfactorily proved. And, although we have not any reason to consider it improbable that the different modes of manifestation of the mind, may be more connected with certain portions of the brain than with others; yet, in all the opinions respecting phrenology, much more is assumed than there are sufficient data to authorize; the propositions in which they are conveyed are vague and indistinct, and they will not bear that strict and logical analysis, which has been considered indispensable in philosophical inquiries.

CHAPTER IV.

THE INTELLECTUAL FACULTIES.

The phenomena of mind have been variously arranged into those of—

Intellect and Volition.
Intellectual and Active Powers.
Sensations, Thoughts, and Emotions.
Intellect, Sentiments, and Propensities.
Animal Powers, Intellectual Faculties, and Moral Powers.
Faculties of Understanding, Election, Emotion, &c., &c.

The difficulty of forming a satisfactory arrangement will appear from the variety that has been proposed. The first of the above, and the oldest, is, I believe, the one most generally adopted; and for that reason, although open to objections, is here followed.

Before entering upon the consideration of the mental faculties, it may be as well to remind you, that the external senses are the media through which impressions are conveyed to the brain, where *an idea, or*

sensation with consciousness, is immediately raised in the mind. The ideas derived from these impressions, are the materials upon which the mind acts, or by which it is affected in the exercise of its faculties, or in the capacity of employing them. The senses have, therefore, been termed, on this account, the inlets of our knowledge.

The office of these organs must, however, be regarded as a very subordinate one; the power of receiving, retaining, and reproducing them,—of combining them into new forms, and of thus multiplying them,—of inferring abstract conclusions, and rules of conduct, belong to the mind itself.

There are two classes of phenomena, the subjects of mental operation; the first disclosed to us by the medium of sensation, accompanied by *perception*, by which we acquire knowledge of external things; and the second by *consciousness*, by which the various operations of our mind are made known to us. The former cannot explain to us anything more than the ultimate change in the configuration of the nervous structure, which is presumed to take place—*the operations of mind* are made known to us by the latter, consciousness. Even were the precise nature of this physical change in the state of the nerve of the sense ascertained, we should not thereby perceive the relation between the instrumental operation, and the result connected with it. Still, the one phenomenon is conceived to be always preceded by the other; it being probable, that every sensation of which the

mind is conscious, as well as every act of memory or of imagination (although in each case an affection of the mind), is connected with some movement in the nervous system.

CONSCIOUSNESS.

As consciousness accompanies the act of perception, and the other mental operations, it will be proper to ascertain the meaning of the term, before we begin to consider these phenomena.

By consciousness, is meant the feeling we have on looking inwards, as if the mind were supposed to look into a mirror and see itself. It is the power we possess of observing our thoughts,—of being sensible that we think, and that we will. Every one is conscious of having a thinking principle within him; and when awake, the mind is never evacuated of thought. We are likewise conscious of recollecting past events, and of anticipating the future.

A temporary suspension of all our faculties,—a state of *unconsciousness*, as it is termed,—takes place in profound sleep, or in a fit of syncope. An approach to this state, may also be perceived at any time by steadfastly looking at one'self for some time in a mirror.

When we awake from sleep, or recover from a fainting fit, we are conscious of our previous existence, which arises from the remembrance of past mental feelings, and a comparison of them with the present. Consciousness must, therefore, accompany

perception, memory, imagination, and judgment, which operations we shall now proceed to consider; and first of

PERCEPTION.

The organs of the senses, by which the mind perceives outward things, and their qualities, are the instruments by which we obtain our different perceptions.

The term "sensation" has been restricted to nervous action, as it occurs in those parts of our frame which are supplied by the sympathetic nerve, and of which we are not, in general, conscious. Some writers make another distinction between sensation and perception. They consider sensation to be a physical change which precedes perception,—the first step in the process; observing, that when the impression occasioned by an external object or internal feeling (which, according to them, is sensation) is transmitted by the nerves to the brain, and becomes sensible to the mind, we then perceive, or have perception.

Sensation, then, implies the change in the state of the mind, which is produced by an impression upon the organ of sense, of which change we can suppose the mind to be conscious, without any knowledge of external objects; while perception expresses the knowledge we obtain, by means of our sensations, of the qualities of matter.

Perceptions are formed from three different sources:

1st: From external senses.

2nd: From certain internal visceral sensations, by some considered a modification of the sense of feeling.

3rd: From the intellectual operations of memory, imagination, and judgment.

By the first class (those derived from external senses) the mind is furnished with all the impressions which come from without. These impressions are marked by greater clearness than those of the second class, namely, the internal visceral sensations; examples of which we have in hunger, thirst, necessity for air, and the various wants, which we have in common with other animals. The ordinary impressions made upon the sympathetic nerves, do not affect them so as to give rise to sensation with consciousness. The passage of food along the alimentary canal, or of chyle or other secreted fluids along their respective channels, do not usually so impress them, unless these parts be in a state of irritation or inflammation. The internal, and, as they are termed, "instinctive sensations," are destined solely for the preservation of the individual, and of the species.

The reproduction of these states in the third method (namely, by intellectual operation), is evident; for we find that every mode of excitement of the brain, which has once taken place by perception, may be renewed, although the cause, which produced them the first time, be no longer present. One

mode of this excitement may also give rise to another. These perceptions, from intellectual operations, are sometimes so vivid, that the most powerful excitement of the external senses, is incapable of diverting the attention from them.

The first movements of infants are instinctive, the result of visceral sensation, and sensation with perception, seems only to exist in a very imperfect degree. Infants have, it is true, to a certain extent, the sense of general feeling, for when impressions on the skin are made, they cry; their hearing, also, appears to be affected by loud sounds. They have some capacity for distinguishing tastes, and perhaps smells, but it is doubtful whether they can see for a few days.

By almost insensible degrees, they acquire perceptions; sensations of sight are compared with those of touch, and in this way, they gradually acquire the knowledge of distances, and of the shapes of bodies.*

* With regard to all our senses, the truth seems to be, that the first notions conveyed by them are of a very limited and imperfect kind; and that our real knowledge is acquired only after considerable observation and experience, in the course of which, the impressions of one sense are corrected and assisted by those of others, and by a process of mind acting upon the whole. The primary objects of vision, for example, seem to be simply light or colour, and expansion. But the judgments which we are in the daily habit of forming upon vision, are of a much more extensive kind, embracing also distance, magnitude, and what has been called tangible figure, such as the figure of a cube, or a sphere. This last, it is evident, cannot be considered as a primary object of vision, but as entirely the result of experience, derived from the sense of touch; for we never could have formed any conception of the figure of a cube or a sphere by vision alone. Distance and magnitude, also, are evidently not the primary objects of vision; for persons who have been suddenly cured of congenital blindness by the operation for cataract, have no conception of the distance or magnitude of

The power of active memory, and the dependent mental faculties, are by degrees acquired; and, although almost ignorant of the instruments of effecting the ends to be obtained, voluntary motion supersedes that, which in many cases, was hitherto instinctive.

In confirmation of this, it may be observed that the mind of a person born blind and deaf, is furnished exclusively with the perceptions derived from the other three senses, smell, taste, and touch, together with visceral sensations; consequently the stock of materials, on which such a mind may act, is greatly reduced, by being deprived of the ideas which ought to have access to it by the eye and the ear. This state of deprivation is not often met with; a case of it, however, excited considerable attention some years ago.

I allude to that of James Mitchell the son of a clergyman in Scotland. Deprived of these two senses (hearing and vision) his mind was constituted of the perceptions he acquired by smell, taste, touch and visceral sensations. The organs of the first three senses, had all acquired an unusual degree of acuteness, and appeared to have, in a great degree, supplied the deficiencies of the two lost ones. By those of touch and smell in particular, he was in the habit of examining everything within his reach; large objects, such as the furniture of a room, he felt with his fingers; whilst those which were more minute, and

objects; they perceive only simple expansion of surface with colour.—*Abercrombie on the Intellectual Powers, 2nd edition, p.* 49.

excited more of his interest, he applied to his teeth, or touched with his tongue. He exercised the sense of touch in the most delicate and precise manner, by the extremities of his fingers, and also by the tip of his tongue, which he insinuated into all the irregularities of a body, with great ease and flexibility. He seemed indebted to his sense of smell, for his knowledge of different persons, at once detecting strangers, and smelling very slightly to know his different relations and intimate friends.

In those who have lost the sense of vision, the sense of touch is often very acute—so much so, that some of them can distinguish colours by the touch; and a blind person of the present day (Holman) has found his way over a very considerable portion of the world.*

A very extraordinary degree of acuteness of sensation, does not add to its perfection. When this is the case, impressions, instead of producing clear and dis-

* Mr. Sanderson, the blind mathematician, could distinguish by the hand, in a series of Roman medals, the true from the counterfeit, with a more unerring discrimination than the eye of a professed virtuoso. Two instances have been related to me of blind men who were much esteemed as judges of horses. One of these, in giving his opinion of a horse, declared him to be blind, though this had escaped the observation of several persons who had the use of their eyes, and who were with some difficulty convinced of it. Being asked to give an account of the principle on which he had decided, he said it was by the sound of the horses' step in walking, which implied a peculiar and unusual caution in his manner of putting down his feet. The other individual, in similar circumstances, pronounced a horse to be blind of one eye, though this had also escaped the observation of those concerned. When he was asked to explain the facts on which he formed his judgment, he said, he felt the one eye to be colder than the other. It is related of the late Dr. Moyse, the well-known blind philoso-

tinct perceptions, produce confused ones. Indeed, excessive acuteness of one of the senses, the others being in a natural state, may lead to a preponderance of the train of ideas and actions connected with the objects of that particular sense, and give rise to errors of perception, which are termed delusions, and which have to be noticed at greater length hereafter.

On some occasions, especially in morbid states of the body, our sensations deceive us, for instance, a person in the cold stage of an ague, shivers at a temperature at which those about him are oppressed with heat.

Sensation is more or less perfect in different persons, and at different ages. As a proof of the perfection to which the sense of smelling may arrive, Humboldt tells us that the Peruvian Indians, in the middle of the night, can distinguish the odour of the different races.

Although the perception of those sensations have a strong general resemblance, yet we see that in all they have particular variations. This variety in the power of perceiving different sensations, together with the degree of attention which persons pay to them, is sufficient, in a great measure, to account for diversity in intellectual character.

The knowledge we acquire of external objects being generally obtained through the medium of more

pher, that he could distinguish a black dress on his friends by its smell; and there seems to be good evidence that blind persons have acquired the power of distinguishing colours by the touch. In a case of this kind, mentioned by Mr. Boyle, the individual stated that black imparted to his sense the greatest degree of asperity, and blue the least.—*Abercrombie. Op. cit. p.* 55.

senses than one, distinct perception is conceived to be in a certain degree an *active* power of the mind, and to operate, as it were, upon the impressions received by the senses. The individual idea, therefore, we obtain of an object, is the result of the activity of the faculty uniting the different nervous impressions. The different senses, acting individually, cannot convey to us definite notions of the primary and secondary properties of bodies, because these are the result of associations connected with the frequent previous exercise of the sense. Thus, when congenital blindness has been cured by an operation, there is at first no conception of distance and magnitude, because this requires the combined action of more senses than one.

ATTENTION.

The accuracy of our perception depends very much upon the degree of attention employed. This act, attention, has been considered the exercise of perception in the highest degree. It is the direction of the organs of sense to the examination of objects,—the voluntary effort of the mind, produced by the desire of knowledge. When we see, hear, or think of an object, and feel a desire to know more of it, we make this effort of attention,—we keep the mind fixed upon the object. This direction of the mind to the exami-

nation of objects, is powerfully influenced by the will. Sometimes we are led to it by association and by habit, and sometimes by strong impressions, acting violently upon the senses, such as a strong light, or a clap of thunder.

Attention, then, renders our perceptions more vivid; and, to give attention to any subject, it is necessary that actual perception be prolonged. It has, on this account, been regarded as the first degree of memory; for, if attention be deficient, the recollection of objects is prevented.

The duration of the act of attention which is fixed only upon one object, or upon one series of objects at a time, is very limited; more so, indeed, in man, than in some animals. The attention of a cat appears to be intense whilst watching the hole of a mouse, probably from its incapacity of recollecting former perceptions. In savage life, also, the attention of man is capable of being powerfully exerted, as we know from the minute attention paid by the Indian to the objects he passes in hunting, and by which he is enabled to find his way when far from home. He traces the progress of his enemies, or his friends, by the marks of their footsteps; and judges of their numbers, their haltings, and their employments, by circumstances which would entirely escape the observation of persons unaccustomed to a mode of life requiring such exercises of attention.

If the eye be directed to any particular object of perception, it will, after a few seconds, be found to

wander; and if the mind be exerted upon a subject of recollection, the intrusion of irrelevant thoughts soon occasions an interruption. The duration of the power of attention, no doubt depends, in some degree, upon the natural capacity of the intellect of the individual; but more, perhaps, on the manner in which the habits have been formed.* Education tends to strengthen it,—to give the mind greater command over its thoughts. In ordinary minds, the attention is little capable of being fixed, even upon objects of sense, and still less on subjects of reflection; in both instances, however, much of this incapacity is to be attributed to defects of education.

Habits of inattention, if indulged in, give rise to a disorder to which we apply the term of absence of mind, in which the will does not exert its influence over the attention; the thoughts wander, and ideas follow each other, like leaves floating on a stream.

* Attention is very much influenced by habit, and connected with this subject there are some facts of very great interest. There is a remarkable law of the system by which actions, at first requiring much attention, are, after frequent repetition, performed with a much less degree of it, or without the mind being conscious of any effort. This is exemplified in various processes of daily occurrence, as reading and writing, but most remarkably in music. Musical performance at first requires the closest attention, but the effort becomes constantly less, until it is not perceived at all; and a lady may be seen running over a piece of music on the piano, and at the same time talking upon another subject. We see the same principle exemplified in the rapidity with which an expert arithmetician can run up a long column of figures, without being conscious of the individual combinations. It is illustrated in another manner by the feats of jugglers, the deception produced by which depends upon their performing a certain number of motions with such rapidity, that the attention of the spectators does not follow all the combinations.—*Abercrombie. Op. cit. p.* 61.

The terms musing and reverie, are also given to this state, which, likewise, very much resembles that in dreaming. In it, the attention wanders on a variety of subjects, and at the same time is but feebly directed to them. Absence of mind is apt to occur in reading, or hearing anything that does not interest us; the attention is suffered to wander, and, although we continue to read and hear, we have no knowledge of the subject; and should that, to which the train of thought is directed, be of a ludicrous nature, we may laugh in the midst of a serious discourse, as is reported of a clergyman of celebrity in Edinburgh, who frequently burst out laughing in the pulpit.

It is worthy of remark, that during this state of absence of mind, while we cease to recognise the existence of external objects, some degree of perception of them may exist, although, for a time, we remain without immediate consciousness of it; for we find that the recollection of an object, the presence of which had not been noticed at the moment, is sometimes recalled to the mind.

Brown study, called by Dr. Darwin studium inane, is a variety of absence of mind, differing only in being voluntary. Thus, when we look for some time upon a running stream, or upon a fire, we are apt to fall into this state, especially if there be no noise to distract us. We become unconscious of what may be passing around us, and every impediment appears to yield; so that our "castle in the air," as it is termed, is reared without difficulty.

Another variety of inattention to surrounding objects occurs in those, whose mind has been much employed in the reasoning process termed abstraction, and in mathematical studies. In such cases the mind is not inactive, it is intensely fixed on a particular subject,—the attention is powerfully excited, and with consent of the will. It is sometimes so much concentrated, that the external senses seem torpid, and the person may be spoken to, or even struck, without having any knowledge of what is occurring.

Profound passion, as well as intense study, may occasion this state. So deeply has the mind been abstracted from external objects, and so vivid has been the train of ideas occupying the mind when under the influence of profound passion, such as excessive joy or grief, that the discharge of a cannon has failed in arresting the attention. And in intense study, especially of what are termed abstract subjects, as mathematical problems, in which perception, memory, and judgment, are called into powerful action, the same inattention to what is passing around occurs. Of this the history of the celebrated Archimedes affords a well-known instance. It is related of him, that when the Roman army took Syracuse, he was shut up in a closet, intent upon a geometrical demonstration. Equally insensible to the shouts of the victors and the cries of the vanquished, he was calmly drawing a diagram, when a soldier clapped a sword to his throat. Archimedes desired him to hold a moment, until his demonstration was finished. The

soldier, astonished at his unconcern, resolved to carry him before Marcellus; but, observing that the philosopher put a small box of instruments under his arm, and supposing it to contain gold, he could not resist the temptation to possesss himself of it, and killed him on the spot.

The late Dr. Hamilton, of Aberdeen, a celebrated mathematician, was in the habit of becoming so completely absorbed in his own reflections, as to lose the perception of external things. Many ludicrous anecdotes are related of him. Thus, he pulled off his hat to his wife in the street, apologising for not having the pleasure of her acquaintance; he sometimes went to his lecture-room in the College, with one of his wife's white stockings on one leg, and his own black one on the other. He sometimes spent the greater part of the time set apart for the lecture, in removing the hats of the students from the table, which, they observing his state of distraction, as constantly replaced. On one occasion, he invited them to come and visit him, and then fined them, for coming, as he thought, to insult him. Once he ran up against a cow in the road, and then immediately turning round, begged pardon for his inadvertence, saying, "Madam, I hope you are not hurt." At other times, it is said, he ran up against posts, and chid them for not moving out of his way; and on one occasion he was perfectly insensible to the violent torrent of abuse and reproach hurled at him by a "fish-wife," whose basket he had run against and overturned.

Another remarkable instance, I may mention, is that of the Rev. Dr. George Harvest, of Thames Ditton, who is said to have written a letter to one person, addressed it to a second, and sent it to a third. On one occasion, playing at backgammon, he swallowed the dice, and discharged a glassful of wine on the dice-board, mistaking the one for the other. At another time, he went into a house, mistaking it for a friend's; no servant being in the way, he rambled over it, until he came to a room in which lay a lady dying of quinsy; perceiving his mistake, he stumbled over several articles in the room, and his confusion, by throwing the lady into an immoderate fit of laughter, had the good effect of causing the quinsy to burst, and she lived many years after, thanking him for the share he had in her recovery.

To this state of absence of mind, stands opposed that which is termed "presence of mind," of which I cannot give you a better illustration, than an instance related of a late eminent physician, who, having been inadvertently left alone with some powerful madmen, in the upper part of an hospital which he was visiting, found himself placed in the following awkward situation. The madmen insisted on his jumping from the window to the ground, and appeared prepared to enforce obedience to their command. With great coolness, he said to them, "Oh, that is nothing at all, any one can jump down, the difficulty is, to jump up from the ground to the window, and that I will undertake to do." Availing

himself of the temporary surprise excited by this expedient, he got away from them.

MEMORY.

We shall now suppose the mind to be furnished with ideas, or the knowledge of facts relating to external objects, and to the mind itself, by perception, and by the attention requisite to comprehend them; we have next to consider the faculty by which they are retained, transmitted, and, after a time, recalled, or again suggested to the mind, accompanied by the consciousness that they were formerly present.

This faculty, Memory, is one of the most important functions of the human intellect; for, without it, we should live in the present only, and all our ideas would be without connexion. It may be regarded as the renewed sentiment, or feeling of a perception already received,—the repetition of an idea, in the absence of the object which produced it. The perceptions of memory are, however, seldom so vivid as those of sensation.

As the formation of the latter is a fact, the cause of which is beyond our research, so is the cause of their retention, in the absence of the object.

This faculty varies greatly in different persons, not only in power and extent, but also in the objects upon which it is capable of being exerted. Some, for instance,

excel in the memory of persons; others, in memory of places, of words, or of languages; others, again, in memory of musical sounds. These diversities are accounted for, by those who consider memory as a single faculty, by the influence of propensity, or affection for particular objects exciting the attention, and thereby increasing the retentive power of the mind on certain subjects, rather than upon others.*

According to Gall's system, memory is to be regarded as a peculiar mode of acting of some of his different fundamental faculties.

Power or strength of memory, depends very much upon distinctness of perception, and upon the frequency of the repetition of the sensation perceived.†

* "That degree of attention, which is required for the full remembrance of a subject, is to be considered as a voluntary act on the part of the individual; but the actual exercise of it is influenced, in a great measure, by his previous intellectual habits. Of four individuals, for example, who are giving an account of a journey through the same district, one may describe chiefly its agricultural produce; another, its mineralogical characters; a third, its picturesque beauties; while a fourth may not be able to give an account of anything except the state of the roads and the facilities for travelling. The same facts or objects must have passed before the senses of all the four; but their remembrance of them depends upon the points to which their attention was directed."

† In the power of retention, much depends upon the habit of correct association; but besides this, there are facts which seem to shew a singular connexion with the manner in which the acquisition is made. Abercrombie relates a singular instance in confirmation of this remark. "A distinguished actor, in consequence of the sudden illness of another, had occasion to prepare himself, on very short notice, for a part which was entirely new to him; and the part was long and rather difficult. He acquired it in a very short time, and went through it with perfect accuracy; but immediately after the performance, forgot every word of it. Characters which he had acquired in a more deliberate manner, he never forgets; but can perform them at any time without a moment's notice.

The term used in reference to this faculty, when little or no effort is required, is remembrance, or *passive memory*, which depends upon the renewal of the exciting cause, and may be regarded as involuntary.

When we are made conscious that objects of sense or of thought, which are accidentally renewed, have formerly been present to our senses and mind, we are said to have recognition; and when we endeavour, or make an effort to remember that which does not immediately, or of itself occur,—the effort of memory we then make, is called recollection, or *active memory*. The term conception has been employed to denote the recollection of actual scenes or persons.

The inferior animals possess passive memory and recognition, and in some instances, perhaps, in a more acute degree than man; but they seem to be nearly incapable of recollection, which requires the power of separating and arranging ideas.

In some minds the faculty of memory has been peculiarly retentive. Mithridates, the famous enemy of the Romans, was, it is said, king of twenty-two kingdoms, where as many different languages were spoken, all of which he understood so well, that he could speak any one of them without an interpreter. Cyrus the Great, also, had so retentive a memory, that he could call every soldier of his numerous army by his

When questioned respecting the mental process which he employed, he says, that he lost sight entirely of the audience, and seemed to have nothing before him but the pages of the book from which he had learnt it; and that, if anything had occurred to interrupt this illusion, he should have stopped instantly." —*Op. cit. p.* 106.

proper name. Seneca tells us of himself, that he could repeat two thousand distinct names, that had no dependence; and mentions the instance of a man, who, after hearing a poet read a new poem, claimed it as his own; and, in proof of his claim, repeated the poem from beginning to end. Cardinal du Perron, also, was able to repeat, without missing a word, two hundred verses which were spoken before Henry IV. of France, by a famous poet, although he had never seen or heard them before. Newton, Pascal, and Robertson, had all of them peculiarly retentive memories.

Retentive memory differs from quick memory; many persons can learn by heart an entire sermon, or a poem, and can immediately afterwards recite them, but soon forget them: while others, who are obliged to pause over the subject, and repeat it often, before they can get it by heart, having once fixed it in the memory, retain it ever after.

Failure of memory is sometimes general, extending to every subject; at other times, we find it more on some subjects than on others. Dr. Percival mentions the case of a Welsh clergyman, who, in consequence of a paralytic stroke, was deprived of the power of speaking English, after he had preached thirty or forty years in that language. He could still converse in the Welsh language with facility, and likewise continued to understand those who spoke to him in English, though he was unable to make any reply in the same language.

Bishop Watson relates the case of his father, who,

after an attack of apoplexy, would ask twenty times in a day the name of his eldest son, then at College, although at the same time he could repeat hundreds of lines out of classic authors.

Forgetfulness of a language previously spoken, and recovery of one long since disused, occurred some years ago, in one of the hospitals. A man, on his partial convalescence from the effects of an injury on the head, attended by delirium, spoke to the attendants in a language unintelligible to them; by an accident, a Welsh woman, going into the ward, heard and understood him. This man had left Wales when young, forgotten his native dialect, and used English for the last thirty years; yet, in consequence of this accident, he had now forgotten the English, and suddenly recovered the Welsh. On his complete recovery, he entirely forgot his Welsh again, and recovered the English language.

ASSOCIATION.

We shall now proceed to consider what is termed the association of ideas,—or that tendency of the mind to recal past impressions. Every one must have remarked when several ideas or feelings have been in the mind about the same time, that if one of these ideas be recalled on some future occasion, some, or all of the other ideas will return likewise.

This principle of association, or sympathy, prevails

also extensively in the actions of our corporeal organs, —for example, tickling the soles of the feet produces laughter; stimulating the nostrils with snuff, or the eyes with a bright light, produces sneezing; and intestinal irritation from worms, occasions grinding of the teeth, and sometimes convulsions. In this way, causes immediately acting on one part, so as to produce sensation, or motion; either, or both of these effects, are produced on another part.

In like manner, our minds are so constituted, that thoughts once brought together, are afterwards apt to return together. Different relations between ideas may serve to connect them, so that one may suggest the other. Ideas related in resemblance, in contiguity of time and place, in cause and effect, and in contrast, have been more particularly noticed.

When our ideas are left to follow each other, without direction from the will, they are influenced by the connexions which have been formed among them, and this train of thought may go on, with very little consciousness of, or attention to it, as in reverie; till at length attention is excited, and directed to a particular thought. At first, we may not be able to recollect what has led us to think of it; but, by a voluntary effort, we are often able, in tracing back the train of thought, to arrive at the subject which gave rise to it; and to discover the connexion between ideas, which has led us, in the course of a very short space of time, to think of things the most widely different.

In exerting thought, or, as it is termed, "recollect-

ing ourselves," we endeavour to confine the mind to a definite track; expecting that this track will bring us to the conclusion we wish, on the principle of the association of ideas. The sight of an object, may recal to mind the thought with which we were occupied when we formerly saw it. Familiar examples of this occur, in the sensation of disgust we experience at the sight of a cup, out of which we have taken disagreeable medicine; or of uneasiness, when the idea of a place occurs to mind, in which we have suffered pain or sickness. This was so great in a case mentioned by Dr. Crichton, that of a gentleman who had escaped from the earthquake at Lisbon, that he became delirious as often as he heard the event mentioned in company.

Many persons ordinarily avail themselves of this power of association, by tying knots on their handkerchiefs; by changing the finger on which they are in the habit of placing a ring; by putting a piece of paper in their snuff-box, and the like, in order to recal to mind the idea present at the time this was done.

Dr. Haslam relates a striking instance of this power of association, connected with place or locality, which proves that past sensations may lie dormant for a great length of time, and afterwards be unexpectedly revived, in consequence of their being connected with another sensation then revived. "A lady, a short time before her death, at some distance from London, requested that her daughter, then four years old, might be brought to visit her. The child remained

three days with her. Sixteen years after, circumstances led her to the house in which her mother had died. Of her visit, when a child, she retained no trace of recollection; even the name of the village was unknown to her. On arriving at the house, she had no memory of its exterior; but on entering the room where her mother had been confined, her eye anxiously traversed the apartment, and she exclaimed, "I certainly have been here before; the prospect from the window is quite familiar to me,—and oh, now I remember that in this part of the room there was a bed, and a sick lady who kissed me, and wept." On minute inquiry, it was found that none of these circumstances had ever occurred to her recollection during this long interval, and in all probability they never would have recurred, but for the *locality* which revived a former sensation.*

Dr. Rush, also, relates an instance in which this principle of association operated beneficially in a case of low fever. He says: "I often went on a holyday with my school-fellows, to see an eagle's nest upon the summit of a dead tree, in the neighbourhood of the school, during the period of the incubation of the bird. The daughter of the farmer in whose field the tree stood (and with whom I became acquainted), married, and settled in this city about forty years' ago. In our occasional interviews, we now and then spoke of the innocent haunts and rural pleasures of our

* Sir Walter Scott, in his third volume of Guy Mannering, most beautifully describes the manner in which local association revives long past and forgotten sensations.

youth; and, amongst other things, of the eagle's nest in the field. A few years' ago, I was called to visit this person, when she was in the lowest stage of typhus fever. Upon entering the room, I caught her eye, and with a cheerful tone of voice, said only, 'the eagle's nest.' She seized my hand, without being able to speak, and discovered strong emotions of pleasure in her countenance; probably from a sudden association of her early domestic connexions and enjoyments, with the words I uttered. From that time she began to recover,—is now living; and seldom fails, when we meet, to salute me with the echo of 'the eagle's nest.'"

In the commencement of learning any art, or acquirement, such as reading, writing, and music, mechanical trades, or juggling tricks, particular attention, with consciousness, to all the steps of the different processes, is essential to produce effect; which is therefore obtained slowly, and by degrees, and at first very imperfectly: but repetition will render all these motions so easy, that nothing then seems required, but to attend to the first link of the chain of movement, and all the rest follows, as it were, automatically, and unconsciously. This principle of our constitution, habit, has the effect of diminishing the force of sensations, in proportion to the frequency of their being excited; and appears even to change their nature, making what was at first disagreeable, indifferent, or even agreeable to us.

Dr. Percival observes, that muscular actions, per-

fectly spontaneous, may be excited without apparent volition, so as to become, as it were, automatic, by the recurrence of impressions with which they have been associated; and he gives the following illustration. A lady had an apopletic fit, of about twelve hours' continuance. Amongst other stimulating applications employed to restore her, a feather dipped in hartshorn was frequently put into her nostrils. This lady, when in health, used to take a great deal of snuff, and the irritation now caused by the hartshorn, produced a junction of the fore-finger and thumb of the right hand, the elevation of them to the nose, and the action of snuffing in the nostrils; when the snuffing ceased, the head and arm dropped down in a torpid state. A fresh application of the hartshorn renewed these successive efforts, till it lost its power of irritation, probably by having rendered the sensibility of the olfactory nerves obtuse. The lady recovered, but had no recollection of what had occurred. We shall again have occasion to mention this subject when treating of volition.

The effect produced upon character by first impressions, and early opinions, strengthened by habit, is generally maintained through life. For the recollection of an impression, is proportioned, not only to its intensity, but to the attention which it receives, and to the feelings with which it is associated. First impressions, therefore, are of great consequence on various accounts, for their intensity is greater in proportion to their novelty; they receive greater attention,

and operate on a mind unbiassed by prejudices, and at a period of life when the desire of excitement and of sensation, predominates. The sensibility of the nerves, that is, the state fitting them for having changes produced by impressions acting upon the sensitive power, existing in the intellect, is greater in early life. The observation of children is ever alive, and awake to the circumstances which pass around them; and from such observations, they are continually drawing their own conclusions, which have a powerful influence in forming their character. That which is imparted in the way of direct instruction, is apt to be received with some degree of suspicion; while it is otherwise with what they discover for themselves. Unfortunately the inferior propensities of our nature, in particular, acquire strength by habit; it is therefore of the utmost importance to attend to the sort of ideas which are presented together to children. Very many of those, who have suffered the punishment of death for crime, have been placed in early life under temptations of various kinds, and through the influence of bad example have commenced their career by learning to swear, lie, steal, and break the sabbath.

We have a strong disposition to imitate the movements upon which our observation is fixed, particularly those acts which we have already performed, repeating them more perfectly and with greater facility, in proportion to the frequency of repetition. This power of imitation, with habit, is the moving spring of almost all the acts of social life, of education, and of manners.

Its influence is most extensive; and, of this, numerous instances might be adduced—thus, weeping powerfully excites to imitation; laughter does so still more. Stammering, too, is sometimes acquired by imitation, as is also hysterical affection in women. Upon the proper regulation of this power of imitation and of habit, our chief dependence must rest in education; due attention being paid to any particular capacities and propensities manifested by the child.

From some of our ideas having been erroneously associated in early life; and from the difficulty of afterwards separating them, arise those false opinions, received before a subject has been duly examined, by which the attention is most directed, and the judgment biassed in a manner, of which the individual is often in a great measure unconscious. These opinions are termed prejudices and are maintained without regard to the arguments that may prove them true or false. In many instances, we are unable entirely to subdue them, and they cause us voluntarily to shut our eyes against other perceptions connected with the objects to which they relate, merely because they may interfere with prepossessions, too often kept up wilfully, for in most cases we are afraid to examine them, lest we should find them to be false.

Strange habits of thinking, long continued, are capable of generating great singularity of opinion and of conduct, and give rise to what is termed "eccentricity,"—a state of mind which is nearly allied to insanity.

IMAGINATION.

We have next to notice that faculty, the range of which may be said to be boundless; and in which, as in memory, association is conspicuous. I mean that of imagination. The difference between memory and imagination may be readily understood by any one who makes use of the two following sentences. "I remember to have seen the Siamese twins." "I can imagine Atlas with the world on his shoulders." Imagination may, therefore, be regarded as dependent on memory, from which, however, is distinguished, by not having the feeling of past time connected with it. It is also to be distinguished from perception, which is the state of mind produced by the object being present to the senses.

To explain more particularly the nature of imagination, it is proper to observe, the the objects of ideas may be simple or complex. Of the former, sensations of heat and cold, thirst, sounds, or colours, which seem not to consist of parts that can be separated, may be considered as examples. Simple ideas are derived from experience; they must have been objects of sensation before we can conceive what they are. But notions of complex objects, which consist of parts that may be separated, and conceived separately, the mind can form for itself. It can combine simple

or compound notions, and thus form ideas, or images of objects it has never seen, (example, a centaur); hence this faculty has been termed imagination. When these complex ideas, therefore, are not derived from memory, they are to be referred to this faculty. Invention consequently is dependent on imagination.

JUDGMENT.

The power or state of the mind, which on examination and comparison of various perceptions, terminates in a conclusion, is called judgment. When we perceive or think of two objects, we may think of them separately, or we may compare them together, and determine their relations; for instance that they are equal, or that they are unequal.

Some have limited the term judgment to the comparison of perceptions, which we receive by the external senses; and they have applied the term "reason" to the comparison which the mind makes upon perceptions spontaneously furnished by the intellect, without the intervention or assistance of the external senses. But this, I think, would lead to confusion. The term reason, or reasoning, is with more propriety limited to the comprehensive exertion of the faculty of judgment,—to a chain of judgments founded upon each other.

To compare, we must have perceptions, upon which

the faculty may be exercised, and consequently the act of attention necessarily enters into the process of reasoning and judging.

Judgment however is sometimes as rapid as the perception, in which case it is termed "intuitive;" and admits of no other evidence than an appeal to the consciousness of every man. Such are:

Belief in our own existence—in our personal identity—that every event must have a cause, adequate to the effect—in the evidence of our senses in regard to the existence, and properties of external things—in our own mental processes—in the uniformity of nature in its sequences or operations.

When judgment is not formed until after having recalled, by memory, several intuitive judgments, it is termed inductive reasoning. It is, however, as difficult to define reason, as to determine its limits; I shall not, therefore, attempt to do so, but shall give a few instances in which we exercise this power.

Thus, by it, we deduce general conclusions from a number of comparisons or judgments. When we have collected facts we trace their causes and deduce general principles. We judge of causes from their effects. We discern when these effects may become causes themselves. We infer results, from the application of known properties to particular cases. We find out relations, or propositions leading to new truths or relations, in which consists inventive genius. We discover abstract truths. We investigate the connexions of facts. We determine their tendencies to

produce good or evil, and the tendency of our own actions in all their relations.

For easy examples of the process of reasoning, take the following:—

First example: If we see the prints of human feet on the sands of an unknown coast, we infer that the country is inhabited,—if these prints are fresh and below the level of high water mark, we infer that the inhabitants are at no great distance,—if the prints are those of naked feet, we infer that they are savages; whilst if they are those of shoes, we infer that they are civilized.

Second example: That the sunbeams and watery vapours in the air cause the rainbow, we infer as follows:—When a prism is turned to the sun, so that the rays pass through it, they are divided into seven parts, each of which appears of a different colour,—we observe the same colours in a rainbow when there are drops of rain in the air; we therefore infer that the sun's rays in passing through them are divided, in the same manner as when a prism is opposed to them. We prove that our inference is correct, by presenting to the sunbeams a glass-ful of water, when we perceive the same colours. Hence we are assured that the rainbow is an effect of the sunbeams and watery vapours in the air.

Reason is an operation of mind peculiar to man. No other animal appears to possess the sentiment of its own existence, or of its own perceptions, recollections, or reasonings. Man, moreover, possesses ma-

terials in language and in the capacity of numeration, which other animals do not enjoy. They (i.e., brutes) are also utterly incapable of abstracting or generalizing ideas. By the former power, man is able to separate various facts from each other, and examine them separately, as for instance, the qualities of substance. By the latter power, that of generalizing, he can take a view of many facts, and select one quality which is common to the whole.

Reason can restrain,—that is, can impose laws upon the most pressing wants of our frame; and its force, or energy, is to be estimated by the control which it exercises upon instinct, upon self-love, and upon the propensities and passions.

Reason and passion are two powers in the constitution of man which continually tend to counterbalance each other. Reason teaches us to check and to regulate our conduct; its presence, consequently, presupposes the existence of a sense of right and wrong. Passion, on the other hand, where it usurps the place of reason, leaves us the sport of chance; and may be so strong, as blindly to impel us, without any sense or knowledge.

It is here proper to observe, that this term "sense," has not been limited to the organs of sensation only. It is also applied to certain capacities or emotions which arise in the mind, in a great degree, independently of the will, but dependent on previously-received ideas; such as the sense of beauty, of sublimity, of novelty, the sense of propriety, of decency, of honour, and of shame.

CONSCIENCE.

The most important of these senses, however, is the sense of right and wrong, termed the "moral sense, or conscience;" by which we feel that certain acts are right, and proper, and others wrong; and which is, to the moral part of our nature, what reason is to the intellectual part.

This moral sense is peculiar to man, and often protrudes itself upon us against our will. Evil-doing men have sometimes felt it so insupportable, as to make life a burden. Good men, on the other hand, have defied torture, and death itself, rather than do that which their conscience declared to be unlawful.*

* Conscience, may be considered to be our supreme regulating faculty or principle, which is in many instances stronger than the love of life, or the fear of infamy. "Let any honest man," says Butler, "before he engages in any cause of action ask himself—'Is this I am going to do, right, or is it wrong—is it good, or is it evil?' I do not in the least doubt that these questions would be answered agreeably to truth and virtue, by almost any fair man, in almost any circumstances."

When we refer to the sacred writings we find the principle of conscience represented as a power of such importance—that without any acquired knowledge, or any actual precepts, it is sufficient to establish in every man such an impression of his duty, as leaves him without an excuse in the neglect of it. "For when the Gentiles," says St. Paul (Romans ii., 14), "which have not the law, do by nature the things contained in the law, these having not the law, are a law unto themselves: which shew the work of the law written in their hearts, their conscience also bearing witness, and their thoughts the mean while accusing, or else excusing one another."—We even find in another part, a power assigned to the decisions of conscience differing in extent only, but not in kind,

Conscience has been considered as a separate faculty of the mind. Under the term of "moral faculty," Dr. Rush has treated of it as subject to the influence of physical causes, and he has given different names to the diseased affections it exhibits. He also conceives, at the same time, that there is a difference between conscience and this so-called moral faculty, connecting the former with the intellectual faculties, and the latter with volition; and conceiving the moral faculty to be to conscience, what sensation is to perception.*

We have thus seen that we are not only intellectual beings, but that we are also moral agents. These two portions of our mind, however, bear no necessary relation to each other; for the intellectual powers of an individual may exist in the highest degree of cultivation and acquirement, while the voice of conscience is unregarded, and the sense of religion is little, if at all felt.

from the judgment of the Almighty; (St. John, iii., 20). "If our heart condemn us, God is greater than our heart, and knoweth all things."

* The province of conscience, then, appears to be, to convey to man a certain conviction of what is morally right and wrong, in regard to conduct in individual cases; and the general exercise of the desires and affections. This it does independently of any acquired knowledge, and without reference to any other standard of duty. It does so, by a rule of right which it carries within itself; and by applying this to the primary moral feelings, that is, the desires and affections, so as to preserve among them a just and healthy balance towards each other. It seems, therefore, to hold a place among the moral powers, analogous to that which reason holds among the intellectual; and when we view it in this relation, there appears a beautiful harmony pervading the whole economy of the mind.—*Abercrombie on the Moral Feelings, p.* 143.

The celebrated Servin, whose character was related by the Duc de Sully to King James, and which is given in his memoirs, is a striking instance of this. "He was," says Sully, "a miracle and a monster—a man of genius so lively, and of an understanding so extensive, as rendered him scarce ignorant of anything that could be known—of so vast and ready a comprehension, that he immediately made himself master of whatever he attempted—of so prodigious a memory, that he never forgot what he once learned. He possessed all parts of philosophy, and the mathematical science, particularly fortification and drawing: even in theology he was so well skilled, that he was an excellent preacher whenever he had a mind to exert that talent; and an able disputant, for and against the reformed religion indifferently. He not only understood Greek and Latin, and all the languages which are called learned, but also all the different jargons, or modern dialects—he accented and pronounced them naturally, and so perfectly imitated the gestures and manners, both of the several nations of Europe, and also of the particular provinces of France, that he might have been taken for a native of all, or any of these countries; and this quality he applied to counterfeit all sorts of persons, wherein he succeeded wonderfully. He was, moreover, the best comedian and the greatest buffoon, perhaps, that ever appeared—he had a genius for poetry, and had written many verses—he played upon almost all instruments—was a perfect master of music, and sung most agreeably and justly; he likewise could

say mass, for he was of a disposition to do, as well as know, all things. His body was perfectly well suited to his mind; he was light, active, and dexterous, and fit for all exercises; he could ride well, and in dancing, wrestling, and leaping, he was admired. There were not any recreating games that he did not know, and he was skilled in almost all mechanical arts. But now for the reverse of the medal,—here it appeared that he was treacherous, cruel, cowardly, deceitful, a liar, a cheat, a drunkard, and a glutton; a sharper in play, immersed in every degree of vice, a blasphemer, an atheist—in a word, in him might be found all the vices that are contrary to nature, honour, religion, and society. The truth of this he himself evinced with his latest breath, for he died in the flower of his age, in that lowest sink of iniquity, a common brothel, perfectly corrupted by his debaucheries, and expired with the glass in his hand, cursing and denying God."

In thus speaking of memory, imagination, judgment, and the moral faculty, as separate powers, or faculties of the mind, we are not to forget that the mind is simple and indivisible—capable of existing in these various states, and known to us only as existing in them, the feeling at each period of time, being continued, till the new state of some other feeling, is more or less rapidly continued. The whole series of these feelings, therefore, has been the whole series of states of the mind, there being no plurality in a sensation, thought, or emotion, to admit of separation, as in matter.

In the analysis of the complex feelings of the mind, the object of our enquiry is the relation of one state to other states, in which it has before existed. No more is to be understood, therefore, by these expressions, than that they are certain modes of action of the intelligent being, which, at one time, has with an idea now present, the feeling of past time; at another, joins images together, or compares objects or notions, and of which every one is conscious, who attends to the phenomena of his own mind.

The ideas presented to us by memory and imagination succeed each other with such rapidity, that if we had no other means of detaining them, we should be unable to compare them. The means with which nature has endowed us for that purpose, is language. We have connected, or associated every idea with a particular sound; and by recollecting the sounds with which these ideas are associated, we are enabled to detain them till the comparison is made, and a judgment formed; and we shall find that we cannot pursue a train of reasoning, without recollecting the words associated with the ideas passing through the mind. When the number of ideas is great, and the operation is complicated, other means have been resorted to, by applying to an external organ of sense, an object which shall constantly excite the ideas we wish to detain,—thus, in mathematical demonstrations, the ideas of lines and angles and of their relative positions, are detained in the mind, by keeping the eye fixed on a diagram. If the person be blind,

a diagram of wood has been made to answer the purpose, and on this principle it is, that the education of such as are deprived of sight is conducted.

In consequence of the inferior animals being destitute of language, or other means of detaining their ideas, they are incapable of comparing them, and consequently of reasoning to any extent. Although very striking approximations to the reasoning process are observed, in dogs, elephants, and horses, yet these animals, not having distinct ideas, cannot compare them, and consequently cannot judge. The inferior animals generally, however, are possessed of another power, that of instinct, in a superior degree to man.

By instinct, is meant a natural tendency to the performance of definite movements, upon the occurrence of certain sensations, or states of inward feeling,—the internal impulse to certain actions, which the animal performs without deliberation,—in other words, reasonable actions, not preceded by reasoning process, but subservient to some bodily sensations in the animal.

The first movements of animals are instinctive, the result of a power operating above the consciousness of the creature, and directing it with unerring certainty to a specific end, by means far beyond its comprehension.

In the beginning of life, man himself does much by instinct, — the new born infant when hungry, impelled by this, and directed by the sense of smell, has recourse to the nipple. Even when

arrived at manhood, we are sometimes guided by this principle; as in the efforts of self-preservation, made in sudden danger, before the reasoning process has had time to form any plan for our safety.*

* "Thus," observes Dr. Reid "the merciful Author of our nature hath adapted our instincts to the weakness of our understanding. In infancy we are ignorant of everything: yet many things must be done for our preservation, and these are done by instinct."

In addition to many profound observations on human instinct, Dr. Reid has made some judicious remarks on the appetites, which seem to apply to the present subject. "The ends," says he, "for which our natural appetites are given, are too evident to escape the observation of any man of the least reflection. The reason of mankind would be altogether insufficient for these ends without the direction and call of appetite. Though a man knew that his life must be supported by eating, reason could not direct when to eat, or what; how much, or how often. In all these things, appetite is a much better guide than reason. Were reason only to direct us in this matter, its calm voice would often be drowned in the hurry of business, or the charms of amusement. But the voice of appetite rises gradually, and at last becomes loud enough to call off our attention from any other employment."—*Reid's Essays, vol.* 3, *Essay* 3, *chap.* i.

CHAPTER V.

THE WILL AND THE PASSIONS.

SECTION 1.

WILL.

The mental act, or state, of which we are conscious and which precedes every voluntary change in the mind, as well as every muscular movement, constitutes volition, or will.

In order to actuate this will, there must exist motive, and as the state of volition is the consequence of a feeling of pleasure, or of pain, the motive of a voluntary act consists in some cause of desire or aversion, which excites the will to continue the feeling of pleasure, or of ease, or to avoid that of pain, through the agency of some organ, with which the mind is connected.

As a general observation, it may be remarked that the same influence of the will which directs the movements of the body, is likewise exerted over the faculties of the mind; although generally, in an inferior degree, both from the greater difficulty of so doing, and also from the less importance of the latter, for the ordinary purposes of life.

In the act of volition, so far as it respects motion, every part of the process seems to flow from that which preceded it; exactly in the same way as in automatic or instinctive motions, except that in the former case, there is one intermediate step,—the consciousness of a purpose to be answered, and the belief that it is attainable, which is wanting in the latter.

The power, or the capacity of moving the muscles, and of regulating the thoughts, which constitutes the will, is of gradual acquirement. It is sometime before the eye appears to notice, and longer before the hand can grasp and manipulate the substances within its reach. In this state, volition would be superfluous, even if it were possessed. By slow gradations, we find the child capable of directing its eye, of listening to sounds, and of examining by the touch; and these imply the efforts of the will, which appear to be subsequent to perception. As we advance in knowledge, our perceptions, which are the sources of intelligence, are principally acquired by the agency of volition, which directs the organ to the object, but we still continue to be acted upon involuntarily, by forcible impressions or striking phenomena.

There are certain motions essential to the preservation of our animal system, termed *involuntary*, which do not originate from ourselves, but are the directions of a superior power, and are effected independently of our experience and control. The other motions that have been termed voluntary, are the result of acquirement or practice, and have been gradually formed by our exertions.

Muscles, which are in general voluntary, may in certain states of the body, become involuntary; although consciousness may remain perfect. This occurs in the disorder termed St. Vitus's dance, and in certain movements acquired by habit. Excess in the use of fermented liquors, will also generally produce it: and the habitual practice of intemperance, will destroy the influence of volition over the intellectual powers; so that the control over the succession of our thoughts can no longer be exerted; and when we give them utterance they are without connexion, and we talk at random.

We also occasionally meet with persons who have a certain degree of control over organs of involuntary motion,—even over the action of the heart itself. Dr. Cheyne, mentions the case of a man, who, to all appearance could die at any time he chose, and then by a voluntary struggle restore himself to life. He says, "on entering this person's room, I, and two other gentlemen felt his pulse, it was distinct though small and thread-like. He then composed himself on his back, and lay in a still posture for some time. Whilst

one held his right hand, another laid his hand on his heart, and a third held a clear mirror to his mouth ; his pulse gradually sunk, till at last it could not be felt by the most exact and nice touch, nor could the least motion be perceived in his heart, nor the least mark of breathing on the mirror held to his mouth. He continued in this state for half an hour, at the end of which time, some motion was observed about the body, and the respiration and circulation gradually returned. On the last trial he made, after recovering about nine o'clock in the morning, he made his will and died in reality, calmly and composedly, about five o'clock in the same evening."

Consciousness and attention, accompany new efforts of volition. As corporeal actions are repeated, however, and become easy, the consciousness and attention gradually diminish, and at length seem to be unnecessary for their production.

The wonderful effect of practice in the formation of habits, has been often and justly taken notice of, as one of the most curious circumstances in the human constitution. A mechanical operation, for example, which we at first performed with the utmost difficulty, comes in time, to be so familiar to us, that we are able to perform it without the smallest degree of mistake, even while the attention appears to be completely engaged with other subjects. In the case of some operations, which are very familiar to us, we find ourselves unable to attend to, or to recollect the act of the will by which

they were preceded, and accordingly some philosophers, of great eminence, have called in question the existence of such volitions, and have represented our habitual actions as involuntary and mechanical. But the inability of recollecting our volitions, does not authorise us to dispute their possibility. Nor does it add force to the objection to urge, that there are instances in which we find it difficult, or perhaps, impossible, to check our habitual actions by a contrary volition. For it must be remembered that this contrary volition does not remain with us steadily during the whole operation; but is merely a general intention or resolution, which is banished from the mind as soon as the occasion presents itself, with which the habitual train of thoughts and volitions is associated.*

* Dr. Reid maintains a contrary opinion to this: he says,—"Habit differs from instinct, not in its nature, but in its origin; the last being natural, the first acquired. Both operate without will or intention,—without thought, and therefore may be called mechanical principles." In another passage, he expresses himself thus:—"I conceive it to be a part of our constitution, that what we have been accustomed to do, we acquire not only a facility, but a proneness to do on like occasions; so that it requires a particular will or effort to forbear it, but to do it, requires very often no will at all."—*Essays on the Active Powers of Man, p.* 128, 130.

The same doctrine is laid down still more explicitly by Dr. Hartley. "Suppose," says he, "a person, who has a perfect voluntary command over his fingers, to begin to learn to play on the harpsichord. The first step is to move his fingers from key to key with a slow motion, looking at all the notes, and exerting an express act of volition in every motion. By degrees, the motions cling to one another, and to the impressions of the notes, in the way of association,—the acts of volition growing less and less express all the time; till at last they become evanescent and imperceptible. For an expert performer will play from notes or ideas laid up in the memory, and at the same time carry on quite a different train of thoughts in his mind, or even hold a conversation with ano-

"Such is the power of custom and habit," observes Dr. Porterfield, "that many actions which are, no doubt, voluntary, and proceed from our mind, are in certain circumstances, rendered necessary, so as to appear altogether mechanical and independent of our wills. But it does not, from thence, follow that our mind is not concerned in such motions; but only that it has imposed upon itself a law whereby it regulates and governs them to the greatest advantage. In all this, there is nothing of intrinsical necessity; the mind is at absolute liberty to act as it pleases, but being a wise agent, it cannot choose but to act in conformity to this law, by reason of the utility and advantage that arises from this way of acting."

It is a circumstance worthy of remark, at the same time most wisely ordered, that, although the effect of volition conveyed to the muscles is to move them, yet the act of volition is not exerted towards those muscles, but towards the effect we wish to take place; the dictate of the will and the motion excited appear instantaneous. Ordinary persons have no information of the structure by which they perform their motions; and it may be also doubted, if an able anatomist would be able to describe the action of the different muscles in complicated movements. The most dexterous artificer is wholly ignorant of the intimate construction of the organs, by which he performs his wonderful elaborations; he has acquired the happy

ther. Whence we may conclude that there is no intervention of the idea or state of mind called will."—*Vol.* 1, *p.* 108.

facility by repeated exercise. There is a tacit and practical convention between his mind and the powers which produce the performance; tacit, as he is unable to describe them, and practical, as, if naturally left-handed, he is unable by any mental directions or influence of volition, to exhibit the same performance with the right.

Although we are sensible that this influence of the mind, conveyed by the nerves to the muscles, is the cause of the motion, we cannot explain in what way, or by what means, the mind operates upon itself, so as to produce attention or recollection; or upon the animal frame, so as to cause motion. We feel, however, that we have it in our power to act, or not to act, that is to say, to choose between motives, and that we are, therefore, responsible agents.

But as our will, in effecting this choice, may be materially affected by the influence, not only of habit, but also of our passions, we are naturally led to make a few inquires into their nature.

SECTION II.

PASSIONS.

These emotions, or feelings, may be so weak, that they last but for a moment, and produce no influence on the conduct. They may be stronger, and lead us to reason, and to act, or not to act, upon their suggestion. They may be powerful, and make us act without judging of the consequences of so doing; or they may be so powerful, as to deprive us of the power of action.

They arise, from the desire of something which is, or appears to be, good or evil, and affect both the body and the mind.

The term, affection, is applied to the calmer, and more durable emotions ; and is applicable to the manner in which we are *affected* by them for a continuance. It supposes a more deliberate predilection and aversion, in consequence of the continued influence of some prevailing quality. This distinguishes it from the transient impulse of passion.

Usage chiefly applies the word to the kindly and beneficent affections; it is, however, in the philosophic sense of the word applicable to an unpleasant, as well as to a pleasant state of the mind, when impressed by an object or quality.

The term passion, has, most probably, been applied to them, because, on receiving the first impression, the mind is *passive.* The state of absolute passiveness

in consequence of any sudden percussion of mind is, however, of short duration. The strong impression or vivid sensation, produces a reaction correspondent to its nature, either to appropriate and enjoy, or to avoid and repel the exciting cause. This reaction is distinguished by the term emotion. The sensible effect produced at the first instant, by the cause of of the passion, greatly agitates the frame; its influence is immediately communicated to the whole nervous system; and the commotions excited there, are indicated by attitudes, and motions of the body and by particular expressions of the countenance.

Thus, although the passion exist, prior to the emotions, yet, as there are its external signs, they must indicate its continued influence as long as they continue to agitate the system. In consequence of this immediate connexion, the words *passions* and *emotions* are in familiar discourse, used synonimously, though, in reality, the latter are uniformly the effects of the former.

The term appetites, is confined to corporeal wants, each of which creates its correspondent desire. In this, the moderns differ from the ancients, since the word "appetitus," from which that of appetite is derived, is applied by them to desires in general, whether they primarily related to the body or not. But the modern distinction has the advantage of immediately pointing out the difference in the nature and character of the objects, which interest us, according as they relate to the body or to the mind.

Various causes modify the passions; thus, in regard to climate, we find that love exerts a more powerful influence in hot countries than in temperate or cold countries.* Spring is more favourable to the lively passions; winter to the depressing passions. Females are more susceptible to the influence of love and of fear than males, whilst the latter are more under the influence of pride, ambition, and anger. Youth is more disposed to love, joy, and wonder; old age to fear, grief, and avarice. The sanguine temperament is more disposed to love and joy; the melancholic to fear, grief, and other depressing passions.

Whilst the passions are thus modified by the causes above mentioned, they, in their turn, exert a powerful influence upon the constitution. They may be considered the causes of various disorders; each of them exerting its action upon the body in a peculiar manner, and producing powerful effects upon the intellectual faculties, and the will, as well as upon the expression of the countenance, and the gestures. For instance, a person who is under the influence of a cheerful passion, regards things with a different eye from that which another does, who is under the influence of a depressing passion. The timid or terrified person, sees differently from the courageous. To him who is in love, the object of his passion appears the most beautiful and perfect of beings, while he who is

* The Esquimaux fashion of exchanging wives for a month or two, for instance, would not be relished, as we approach the warmer regions of the south.

a prey to grief, looks with indifference on the most beautiful and seducing objects.

The influence of the passions is peculiarly conspicuous when the mind becomes disordered, and reason loses its controling power. They, not unfrequently, lead to the insane state, and often form the prominent feature in it; more especially the passions of pride, anger, love, fear, and grief; and they are then strongly and characteristically exhibited in the expression of the countenance.*

By some, the passions have been divided into the expansive and oppressive; of the former, love and joy are given as examples; of the latter, grief and fear. Thy have likewise been divided into primitive and social passions; of the former are love and fear—of the latter, self-love, vanity, and jealousy.†

* See "Physiognomy of Mental Diseases," by Sir Alexander Morison, M.D. 1843.

† Some writers on the passions have placed them in contrast to each other, as hope and fear,—joy and sorrow; some have considered them as they are, personal, relative, social,—some, according as they relate to past, present, or future time,—as sorrow principally refers to things past, joy and anger to present scenes, hope and fear to futurity.

The Academicians advanced that the principal passions were fear, hope, joy, and grief. Thus, Virgil:—

"Hinc metuant, cupiunt, gaudentque, dolentque."

They included aversion and despair under the fourth; and hope, fortitude, and anger, under desire.

Dr. Hartley has arranged the passions under five grateful, and five ungrateful ones. The first consisting of love, desire, hope, joy, and pleasing recollection; and the second of hatred, aversion, fear, grief, and displeasing recollection. The objections to this arrangement are, that all these cannot be considered as cardinal psssions. Nor do the distinctions themselves appear sufficiently accurate: hope being certainly a species of desire,—pleasing recollection is a modification

As we have now to consider the more remarkable effects of the passion, and as we find that some of them are attended by a state of depression, and others by a state of excitement, we shall consider them under these two heads.

EXCITING PASSIONS.

Every violently-exciting passion, as of anger or terror, affects the brain, the heart, and the lungs; causing head-ache, palpitation, and disordered respiration.

The effects produced on the heart and lungs, in

of love,—aversion is only a particular manner of testifying hatred; and displeasing recollections are caused sometimes by the renewal of grief, sometimes of anger.

Dr. Watts divides the passions into primitive and derivative. The primitive he subdivdes into two ranks—first: admiration, love, hatred—second: the divers kinds of love and hatred, as esteem, contempt, benevolence, malevolence, complacency, displacency. The derivatives, are desire, aversion, hope, fear, gratitude, anger, &c.

Mr. Grove, adopting in part the arrangement of Dr. Watts, reduces all the passions to the three heads of admiration, love, and hatred; which he styles accordingly, the primitive passions. The others, he denominates mixed passions; which he describes to be those which have admiration blended with them, and those compounded of the passions that fall under love and hatred. But the title of admiration, to be considered as a primitive passion, does not appear to be so valid, as that of the other two associated with it. Love and hatred are in universal exercise; admiration is merely occasional. The former indicate themselves from the instant we have any powers of discernment, or the smallest degree of experience respecting the nature of objects; the latter is the result of some degree of knowledge. The youngest and most uncultivated minds will manifest that they love and hate, long before they have an opportunity of testifying their admiration.

consequence of the impression made on the brain, and transmitted by it, are so powerful, that some physiologists have conceived the præcordia to be the seat of emotions rather than the brain. A late celebrated French physiologist has placed the soul in the brain, and the passions in the organs of organic life, as he terms it, that is, the organs supplied with nerves derived from the sympathetic.

I shall now proceed to consider the effects of the exciting passions, and shall commence with

JOY.

This passion, when in moderation, (then termed gladness,) increases the circulation of the blood, and the perspiration, communicating agreeable sensations to the whole body. Not unfrequently it produces a flow of tears, which gives relief to a feeling as of a painful struggle about the heart.

Together with hope and love, joy adds fresh vigour to the pursuit of what appears good; and it even appears to shorten time, so that a day may appear as but an hour.

When excessive, joy, especially if suddenly excited, has produced various disorders, as fevers, delirium, fainting, and even death itself. Cases, also, are on record, in which the sudden intimation of pardon to condemned criminals, has produced insanity; and the

same has been produced by the sudden acquisition of fortune. It is related by Dr. Mead, that of the number of those who lost their reason in consequence of their connexion with the South Sea Company, in 1720, the proportion was greater of those who had become suddenly rich, than of those who were completely ruined.

On the other hand, this passion is stated to have cured mental disorders; thus, a woman who had been for some length of time insane, was restored to her senses by the sudden and unexpected return of her husband.

History relates numerous instances of death being occasioned by sudden and violent joy—thus, Sophocles is said to have died through excess of joy by obtaining a poetical prize at the Olympic games. A similar cause is stated to have produced the death of the Second Dionysius on hearing of the success of a tragedy of his own composition. Chilo and Diagoras both died from excessive joy,—the first, at seeing one of his sons, and the other, at seeing no less than three crown'd victors at the Olympic games. Leo 10th, is said to have died of joy, on receiving accounts of his military success; as did also the Jewish pirate Sinamus Taffierus, when preparing for battle, on receiving the unexpected news that his son, who had been made prisoner by Barbarossa, and by him doomed to slavery, was ransomed, and coming to his aid with seven well-armed ships.

Admiration, the emotion which fixes the mind with

strong attention upon an object, and extacy, both modifications of this passion, have had the same effect. Francisco Francia, a painter of the fifteenth century, is said to have expired, after fainting, in consequence of admiration excited by viewing one of the paintings of Raphael. Mirth, another modification of joy, is said to have produced death from convulsions.

PRIDE.

Pride, with its various combinations, is, next to fear, of all the passions, perhaps, that which acts most powerfully on the mind, and is the most difficult to remedy.

Pride is that exalted idea of our state, qualifications, or attainments, which exceeds the bounds of justice, and induces us to look down upon supposed inferiors with unmerited contempt.

Vanity is that species of pride, which, while it presumes upon a degree of superiority in some particular articles, fondly courts the applause of every one within its sphere of action,—and seeks every occasion to display some talent, or supposed excellency.

Pride is less confined in its objects than vanity, and therefore, is exposed to more numerous mortifications. It sometimes assumes the appearance of humility, and shows itself, as Burton says, " by affecting to contemn praise and honour ; and by lowliness

in outward character, although all within is pride, arrogance, and conceit." *

Ælian has given an amusing account of the operation of pride, in the story of Menecrates, a physician of Syracuse, who was generally accompanied by some of the patients whom he had cured. His pride was such, that he considered himself to be entitled to divine honours. Philip of Macedon, having invited him to an entertainment, resolved to make him sensible of the folly of his pretensions; accordingly, he directed a separate table to be spread, whereon were placed costly perfumes and fragrant incense, but nothing else. Menecrates, it is stated, was at first highly delighted, and received the homage that was paid to him, with the greatest complacency; but, growing hungry, and having nothing before him wherewith to satisfy his appetite, whilst every other guest was indulging in substantial dainties, he perceived the reproof that was intended, and retired in confusion from the court.

Allied to the passion of pride, is that of ambition; to which may be referred excessive desire of glory, of power, of riches, of distinction, and of celebrity. The excitement caused by ambition, is of a more permanent nature than that of either pride or vanity. An ardent desire for any object, especially if accompanied by a prospect of success, excites both the powers of the mind and of the body, increases the heat, and

* Pride has been regarded as an artificial passion, as it seldom appears in early life, unless enjoined by precept, or recommended by example.

quickens the circulation. It has roused the body to exertions far above what the strength seemed to be capable of; the vital principal appearing, as it were, concentrated in one effort.

In illustration of this remark, I may refer to the history of Muley Moluc, King of Morocco, who, while borne on his litter, and spent with disease, was aroused to extraordinary efforts in the last battle which he fought against Don Sebastian. Perceiving his troops beginning to give way, he threw himself out of his litter, though very near his death, rallied his army, and led them on to the charge, which ended in a complete victory to his party. He had no sooner brought his men to the engagement, than finding himself utterly spent, he was again replaced in the litter, where, laying his finger on his mouth to enjoin secrecy to his officers, who stood around, he died in a few minutes.

ANGER.

The next passion I am to notice is anger, which arises from our aversion to pain, and leads us to resent injury. With its compounds, suspicion, jealousy, and revenge, it is a passion of a painful and oppressive kind. It rouses into action the powers of the body and mind, and accelerates the circulation. Sometimes it produces increased circulation in the capillary vessels, inducing redness and heat, although

at other times pallor is a common effect. It also exhausts the strength, produces tremors, and causes the voice to falter.

When excited in a high degree, violent headaches, hæmorrhages, apoplexy, epilepsy, fevers, and even sudden death has been the consequence of this passion. Dr. Reid mentions an instance of this in a farmer, who being violently enraged at a tenant, for some alterations made in one of his houses without his knowledge, suddenly fell down, and died in the crisis of his anger. A similar case is said to have produced the death of Scylla, and also that of Attila.

The expressions and gestures occasioned by anger, are violent and offensive, resembling those produced by maniacal fury. The features are convulsed, the eyes are red and seem ready to start out of the head, and the passion is ungovernable.*

Several of the secretions appear to undergo a change during the operation of anger; thus, the increase of bile, as one of its consequences, has been observed in both ancient and modern times. The saliva and the secretion of milk also, become

* Seneca's celebrated description, gives a satisfactory and comprehensive view of the phenomena of anger. "Ut furentium certa indicia sunt; andax et minax vultus, tristis frons, torva facies, citatus gradus, inquietæ manus, color versus, crebro et vehementius acta suspiria: ita irascentium eadem signa sunt. Flagrant et micant oculi, multus ore toto rubor, exæstuante ab imis præcordiis sanguine! labia quatiuntur, horrent ac subriguntur capilli, spiritus coactus ac stridens: articulorum se ipsos torquentium sonus, gemitus mugitusque, et parum explanatis vocibus sermo præruptus, et complosæ sæpius manus, et pulsata humus pedibus et totum concitum corpus magnasque minas agens, fæda visu et horrenda facies depravantium se atque intumescentium."—*De Ira, i., l.*

changed, from whence arises colic and diarrhea in the infant. Tourtüal mentions having seen a child die, as if struck by lightning, after taking the milk of its enraged mother. Some authors, also, have even asserted that hydrophobia, can be induced by the bite of an enraged man.

Since this passion is productive of such violent disturbances in the body, and so much resembles madness, as to be styled by Horace "ira furor brevis," it is not surprising that anger should sometimes terminate in that state.

In jealousy, one of the compounds of anger, there is a combination of passions. Suspicion, hatred, and desire of revenge, occasionally mixed up with love. The peculiar effects of jealousy in producing spasm of the biliary ducts, and thus throwing the bile into the circulation of the blood have long been noticed.

> "It is the *green-eyed monster* which doth make
> The meat it feeds on."

Jealousy and suspicion are nearly allied, differing chiefly in degree and in the nature of the object; the former being a species of suspicion, that relates to conduct which more intimately concerns ourselves; while suspicion is the state of doubt, concerning the conduct and character of another, and in which the mind is greatly embarrassed respecting the degree of esteem, or friendship which is due to the object.

Envy, (that hateful passion of which no man willingly acknowledges himself the subject) wishes to be superior by pulling down others. Their pros-

perity, genius, or virtues, are to him the source of anguish. It seems to partake both of anger and of sorrow, and is sometimes stimulant, sometimes sedative, according as the former, or the latter, of these passions predominate.

Hatred may be regarded as restrained anger, slow and continued, and generally proceeding from the same cause.

There is a modification of this passion, called antipathy, which consists in a strong dislike, for which we cannot account. Many experience it on seeing a toad, a serpent, or a spider. This feeling may in most cases be overcome; but some persons seem rather to be at pains to encourage it. Some will scream at the sight of a mouse, a caterpillar, or a frog; others have an antipathy to certain kinds of food, as cheese, and will even grow sick if it be in the room; and others again cannot bear the touch of velvet or of cork.*

* It is remarked by most of the biographers of Peter the Great of Russia, that from his infancy he had such a dread of water, as amounted to hydrophobia; that he could not pass a brook without being thrown into a cold sweat and convulsions. The cause of this dread of water, is ascribed to his one day, when four or five years old, lying on his mother's lap in a carriage, and being suddenly awakened by the approach to a waterfall or cataract, the rushing noise of which had such an effect on his nerves, as to bring on a fever. It is not uncommon to invent or exaggerate juvenile accidents, in order to account for personal defects or eccentricities, which are for the most part hereditary or constitutional. If, however, he had this aversion, he determined to conquer it; and by practising in a small boat on the river, which passes through Moscow, he not only succeeded, but became passionately fond of the water, and took such delight in managing his little boat, that he himself considered it to have been the germ of the Russian navy.

Misanthropy (which has rendered the name of Timon of Athens infamous) is the highest degree of hatred, and consists in an unconquerable aversion of mankind.

The "running a muck" of the Malays is probably a variety of this passion. The free Malays are said naturally to be a well behaved race of men, except when impelled by offended pride or jealousy, and then they are apt to give way to the instigations of blind fury against any one who comes in their way.

The following is one of many instances that might be given. A Malay chief was indebted to a Chinese merchant, who applied to him for the repayment of the debt, and insisted on immediate payment, under penalty of having him committed to prison. But being unable to meet the demands of his creditor, and mortified at the prospect of this disgrace, he took the resolution of "running a muck," and killed and wounded several men, near the door of the house where he had been placed, previously to his being taken to prison. While on the road there, he happened to meet the commanding officer of Malacca, (from whom I had the anecdote), and, before he could be prevented, he rushed forward, and struck his crease into his side; fortunately, however, without any serious injury. Immediately after this, he was surrounded and put to death.

DEPRESSING PASSIONS.

As increased excitement produces various symptoms in common, whatever may be the nature of the governing passion at the time; so are there also certain symptoms common to the opposite state of decreased excitement, in the depressing passions. There is a greater or less degree of torpor in the circulating and absorbent systems, producing paleness of the countenance, coldness of the extremities, and contraction of the skin, a slow pulse, want of appetite, and indigestion, debility, langour, and love of solitude. I shall first notice

LONGING.

The ardent desire included under the term longing, may be directed towards objects of various kinds. It is an emotion of a painful and exhausting description, producing the feeling of oppression about the præcordia. In this passion, besides love, the emotions of hope, and of fear, are included.

A transitory feeling of this kind, sometimes occurs in children, when at a distance from their homes. A still greater impression is felt by the inhabitants of

certain localities, who have a strong and inextinguishable love for their country, and by those whose union appears to be opposed by almost insurmountable difficulties.

Nostalgia, the name for excessive longing for home, obtains complete possession of the mind, and incessantly presenting itself, renders the person timid, morose, and restless. Every other feeling is absorbed in this desire; and in the progress of the complaint, the digestive organs become deranged, and the life of the sufferer is terminated by atrophy, and sometimes by suicide.

This affection is frequent among the inhabitants of mountainous countries. At the same time, it must be noticed, that the inhabitants of level countries sometimes become nostalgic, when compelled to live in towns, and that the inhabitants of towns, in like manner, occasionally become so, if obliged to live in sequestered situations.

Highland soldiers, when far from their country, frequently become nostalgic, especially if old scenes and recollections are recalled by certain tunes. Thus the colonel of one of these regiments, stationed in the West Indies, found it necessary to prevent the band from playing "Lochaber no more," from the powerful effect it had upon them. Several instances of death, also, are stated to have occurred in another highland regiment, stationed at the Cape, from this cause.*

* Sauvages informs us that this disorder is exceedingly prevalent in Switzerland; even the very lowest beggars, who have no habitation, are not exempted.

Napoleon, while in exile at St. Helena, is said to have declared to those around him, that if led blindfold to Corsica, he would embrace, with rapture, a soil, whose very smell would enable him to recognize it.

Some children have been seized with nostalgia; but in them, we can hardly suppose that it arises from desire to return to their country, for they are too young to have acquired this sentiment. It is rather a desire to return to those who have reared them.

Neither is absence from country or persons, the sole cause of the complaint,—misfortunes lead to, or increase it. Thus, when an army is routed, nostalgia becomes very prevalent. It has also raged very much amongst those afflicted with the plague, and amongst captives in war. In the 137th Psalm, the children of Israel thus express themselves:—

"By the rivers of Babylon, there we sat down, yea, we wept, when we remembered Zion. We hanged our harps upon the willows in the midst thereof. For there, they that carried us away captive required of us a song; and they that wasted us required of us mirth, saying, sing us one of the songs of Zion. How shall we sing the Lord's song in a strange land? If I forget thee, O Jerusalem, let my right hand for-

And the tune of Rans des Vaches, a favorite air expressive of the happiness of the Swiss, repeated in a foreign country, had such a powerful effect in inducing this affection, that it was forbidden, under pain of death, in the French camps and military stations where Swiss soldiers were.

get her cunning. If I do not remember thee, let my tongue cleave to the roof of my mouth; if I prefer not Jerusalem above my chief joy."

When the disorder is violent, nothing avails but returning to the native country, which operates so like a charm, that the very preparations for the return, prove efficacious, although the patient be debilitated, and unable to bear the least fatigue.

LOVE.

The passion of love, both on account of the frequency of its occurrence, and the tragical effects to which it sometimes leads, demands our consideration.

Of all the passions which subjugate the reason, love is the most powerful and irresistible in its effects. It is little influenced by selfish considerations, and would voluntarily submit to much privation, to promote the happiness of the beloved object; although, no doubt, corporeal feelings still unite themselves, more or less, with the sentiment.

Persons have become deeply enamoured, from the first moment the object has been seen; although they have had no previous acquaintance. This must arise from the opinion formed from the physiognomy, being uncontradicted by any known circumstances to diminish the favourable impression. Love being once excited, a train of ideas of a romantic character arise,

which, instead of being repressed by obstacles, is frequently increased by them.

So long as there is any hope of attaining its object, love seldom produces disordered mind. But it occasions loss of appetite, and of sleep, quickened circulation, and other signs of increased irritability. It is when hope is suddenly cut off, that the mind is sometimes incapable of resisting the shock, and the judgment is overwhelmed. Under such circumstances, the passion of revenge is sometimes blindly excited, even against the object of disappointed affection.

Inanimate statues have been the objects of this passion; and men, who have never loved previously, have conceived an affection for a particular person seen in a dream, which has continued to operate upon them after awaking; and has actually terminated in a sincere and lasting attachment to the visionary object of their love.

This passion has sometimes led to the commission of suicide. Esquirol relates the case of a young man who became desperately in love with a lady. His parents for a long time witheld their consent to his marriage, but at length reluctantly agreed to give it,—too late, as it proved, however; for on the very day of his marriage his reason was overturned, and he put an end to himself in the ball room.

The sudden transition from joy to grief, gives the greatest shock to human fortitude and reason; and this is particularly experienced by the disappointed lover, whose hopes have been encouraged only to be cast down.

An accident happening to the beloved object, has sometimes led to the discovery of concealed love. An instance occurred in a young married lady, who had a secret affection for a young officer, which she had carefully concealed, until she accidentally heard that this young officer was about to fight a duel, when she became delirious, and in her ravings, betrayed to her astonished husband, a secret which otherwise might never have been divulged.

FEAR.

The passion of fear diminishes the force of the circulation in such a degree, that in some cases, blood will not flow from an opened vein. Paleness, shivering, and faintness are likewise produced by it, hence the stoppage of hæmorrhages and of different natural secretions. Inertness and torpor pervade the whole system, united with a constriction of the integuments of the body, and also a certain sense of being fettered, or of being rendered incapable of motion. The eyes are wild, and the countenance contracted and wan, and the hair stands erect. Perspiration is excited by fear, but it is cold and clammy, like that which attends general debility and syncope. It also produces diarrhœa, and incontinence of urine, weak digestion, flatulence, and acidity. It renders those under its influence more liable to the infection of contagious diseases, and has even caused death.

When excited to an intense degree, however, if there appears a possibility of escape, fear has sometimes become powerfully stimulant, so that its effects have strengthened paralytic and gouty cripples, who, though unable to move before, have, on the alarm of fire, or other danger, been able to leave their beds, and escape from the house.

When a personal attack is apprehended, momentary and trembling strength is thrown into the muscles, the body instinctively places itself in an attitude of defence, and a mixture of fierceness and wild horror is expressed in the countenance. If escape be attempted, an unusual energy is thrown into the limbs, enabling the individual to precipitate his flight, by exertions that would have been impracticable, in a more composed state of mind.

Count de Chavagnac is stated to have been laid up in bed with a fit of the gout, whilst a general in the Imperial army. But an alarm being given that Marshal Turenne was on his march to attack his quarters, the fear of falling into the hands of his countrymen, wrought an instantaneous cure on him, for he got out of bed, dressed himself, and got into his coach, all without help, and was conducted to a safe retreat.

In some cases, it is not until after the first shock occasioned by fear, when we become fully aware of the danger we have run, that the more prominent effects of the passion show themselves, as headache, quick pulse, debility, and mental agitation.

In children, convulsions are sometimes induced by fear, and indeed death itself has occasionally occurred. Bonetus records the death of a child as occurring from unexpectedly seeing two persons in black beside him.

Aneurisms of the heart, and great vessels have likewise been produced by fear. Dessault states, that during the reign of terror in Paris in 1793, he observed this to be not an uncommon effect. A remarkable effect of fear, is to change the colour of the hair; so that the head has frequently become perfectly white, in a few hours after sentence of death has been pronounced. A striking instance of this change occurred in a gentleman named Sutherland, during the domiciliary visits in Hayti. Although assured of the protection of Petion, he was so terrified by the cries of the victims of the policy of the day, that his hair, which at the commencement of the night was in its natural state, in the morning, was found to be perfectly grey.

John de Poictiers (Count de St. Valier), convicted of being an associate in the conspiracy of the Constable de Bourbon, against Francis the First, and condemned to lose his head, was so much affected by fear, that in one night his hair was turned entirely grey; so that the officers of the prison took him next morning for another person. But this was not all,—he was seized with so violent a fever, that, although his daughter Diana, Duchess de Valentenois, had by her charms procured his pardon from the king, no remedies were able to prevent his death.

In illustration of the fact that fear lessens, if not entirely arrests the secretion of saliva, I may mention that the conjurers in India have a curious method of detecting theft, founded on this phenomenon. When a robbery has been committed in a family, a conjurer is sent for; and great preparations are made. A few days are allowed to elapse before he commences his operations, for the purpose of allowing time for the restitution of the stolen property. If, however, it be not restored by the time fixed, he proceeds with his operations, one of which is as follows. He causes a quantity of boiled rice to be produced, of which, all those who are suspected must eat; after it has been masticated for some time, he desires them to spit it upon separate leaves. He now examines the rice very knowingly, and immediately points out the culprit, from observing that the rice which he has been chewing, is perfectly dry; whilst that which has been masticated by the others, is moistened by saliva.

Bonetus relates a case of catalepsy and death, produced by terror, which occurred in a Polish soldier, who deserted from his regiment. He was discovered, a few days afterwards drinking in a public-house. The moment he was apprehended, he was so much terrified, that, after giving a loud shriek, he was deprived of all the power of speech. When brought to a court-martial, it was impossible to make him articulate a word. He then became as immoveable as a statue; and appeared to be unconscious of everything

that was going forward. In the prison to which he was conducted, he neither ate nor drank,—neither threats, nor promises, had any effect,—he remained senseless, and immovable. His irons were struck off, and he was taken out of prison, but still he did not move. He passed twenty days in this way, during which he took no kind of nourishment, and gradually sunk, and died.

Insanity has sometimes been produced by terror, of which the following melancholy instance came under my observation. A young lady was on a visit to the house of a medical gentleman, in which there was a skeleton. Her companions, by way of frolic, placed this on her bed, after she had fallen asleep, and then suddenly awoke her. Insanity was the immediate consequence, and she was never afterwards restored to reason. A short time ago, a similar effect was produced by a boy dressing himself up in a white sheet, and grasping hold of a young woman, intending to frighten her as a ghost.

Surprise, timidity, and shame partake of this passion. Another variety is, anxiety, or habitual fear of disastrous events, and unreasonable care for the future. This mental feeling embitters the life of the individual with false and visionary ideas, and renders him discontented with all those around him.

The next depressing passion to be noticed, is

GRIEF.

The cause of which is the loss of enjoyment, present or expected. This passion diminishes the force of the circulation, and the perspiration, and produces paleness, it increases the malignity of contagious fever, and of sea-scurvy, as well as the liability to receive infection.

The irritability of the system is, in some cases of grief, so much diminished, that the sufferer feels no hunger, and there is so much torpor in the nervous system, that comatose sleep is sometimes produced.* The sufferers in general prefer silence and solitude —even the presence or conversation of a friend, is irksome to them, and they are sometimes incapable of shedding tears, or even of sighing. The return of these, therefore, may be regarded as a favourable sign, indicating the return of the natural sensibility, and when this takes place, there is, as it were, a struggle at the præcordia, with great anxiety; the heart feels full and ready to burst, hence the name "heart-ache," has been applied to this variety of suffering.

This passion of grief appears under two forms, the one sudden, and the other slow and lasting.

In the former, there is a sudden sense of oppression,

* "And when he rose up from prayer, and was come to his disciples, he found them sleeping for sorrow."—*St. Luke*, xxii., 45.

almost like a blow, felt in the præcordia or region of the stomach, the heart pulsates violently, and irregularly, the respiration is slow and interrupted, producing sighs, or sobs; the features are fixed, and expressive of suffering, and tears are sometimes shed. The digestion is interrupted, the appetite lost, and head-ache felt.

This sudden grief has occasioned insanity and death. Of the latter event, history records many instances,—thus Isocrates was so overcome by grief when informed of the loss of the battle of Cheronæa, that he refused sustenance, and died in four days. Philip IV. shared a similar fate, on the defeat of his army in Italy. Racine could not survive his disgrace at the court of Louis XIV., and, to give another instance—Louis of Bourbon, having caused his father's tomb to be opened, died from grief on seeing his lifeless body.

The other form, slow lasting grief or sorrow, is often the effect of the former; it is frequent in women who have been disappointed in their domestic concerns, who are exposed to contradiction, indifference, jealousy, or bad treatment.

There is head-ache, want of sleep, oppression at the præcordia, sighing, indifference to what was once dear, little or no appetite, impaired digestion, pain at the pit of the stomach, and emaciation, with pale sallow complexion, the eyes are hollow with an expression of melancholy and suffering; the biliary system also is peculiarly liable to be disordered. The pain at the pit of the stomach just mentioned, is al-

most peculiar to females; it sometimes lasts for several days, accompanied by vomiting, and occasionally by convulsive or hysterical fits, and even by low muttering delirium.

Despair is a modification of this passion, in which grief and fear are combined, without any mixture of hope. The nice difference between despair and grief, have been finely contrasted in the tragedy of the gamester.

The sources of this passion are numerous ; — amongst them may be enumerated disappointed ambition, mortified pride, excessive dread of poverty, religious despondency, supposed unfitness for the duties of life, and bodily suffering. But of all causes, the most frequent and the most severe is a sense of guilt. The torments of an evil conscience have been so insufferable, that criminals have voluntarily surrendered themselves to justice, preferring the disgrace of a public execution to the miseries they endured from the gnawings of "the worm that dieth not." "The spirit of a man will bear his infirmity ; but a wounded conscience, who can bear ?"

It is melancholy to reflect that despair has sometimes been produced by ideal crime. Persons of a timid disposition, and who are disposed to view the dark side of things only, sometimes by their own meditations, at other times by the influence, of bigoted enthusiasts have been led to consider themselves doomed to eternal misery, and have, in consequence, put an end to their existence.

TREATMENT.

In the treatment of the depressing passions, occasional relief may be obtained by attending to the corporeal symptoms; but much is not to be expected from medicine,—more is to be effected by the soothing tenderness and consolation of a judicious friend, with seasonable admonition. Remorse, which is often exaggerated by a constitutional disposition to melancholy, is the most difficult passion to remedy,—medicine here is of no avail.

Shakspeare makes *Macbeth* say:—

> "Canst thou not minister to a mind diseased,
> Pluck from the memory a rooted sorrow,
> Raze out the written troubles from the brain,
> And with some sweet, oblivious antidote,
> Cleanse the stuffed bosom of that perilous stuff
> That weighs upon the heart?
> ——————Throw physic to the dogs!
> I'll none of it."

The memory of the past is, if possible, to be soothed by the arguments of reason, and by the doctrines and promises of Divine Revelation, which give us the assurance of mercy and pardon.

CHAPTER VI.

THE INSANE STATE IN GENERAL.

In treating of the insane state generally, I shall first consider the disorder in the exercise of the intellectual powers,—the delirium; which is referred, by some, to error of the judgment.

Cullen thus defines it: "In a person awake, a false judgment, arising from perceptions of the imagination, or from false recollections, commonly producing disproportionate emotions." Locke, also, defines it, as "a disposition to associate ideas incorrectly, and to mistake them for truth; hence madmen err, as men do who argue right from wrong principles." The same view of the subject is also taken by Sauvages, and many others.

On the other hand, madness is referred to the faculty of perception, by Drs. Battie and Crichton; the latter of whom considers delirium to consist in "general derangement of the mental faculties, in which, diseased perceptions are mistaken for realities; with incoherent language, and unruly conduct."

Dr. Crichton is one of those, who consider the judgment to be distinct from, and independent of, the organization; and he is of opinion that this faculty remains unaffected, observing that, "in regard to lunatics, and men of sane mind, the faculty of *judgment is the same in both*, but they have *different perceptions;* and therefore their judgment must be different."

Dr. Spurzheim has defined insanity, to consist in "an aberration of any sensation, or intellectual power from the healthy state, without the mind being able to distinguish that diseased state; or in the aberration of any feeling from the state of health, without being able to distinguish it, and without the influence of will, or the action of the feelings." Or, in fewer words, incapacity of distinguishing diseased functions of the mind, and irresistibility of action.

The difficulty of giving a satisfactory definition of insanity will be obvious, when we consider the variety, and the difference of those above stated. Indeed so difficult has it appeared to some, that Dr. Haslam, who in the first edition of a treatise on insanity, attempted to give a definition; in a subsequent edition, published eleven years afterwards, declines giving

any thing of the sort ; and contents himself with the conclusion that " if to an ordinary observer, a person were to talk in an incoherent manner, he would think him mad ; and if his conduct were regular, and his observations pertinent, he would pronounce him in his senses. The two opposite states are well understood, when well marked, but there are many different shades, which are not so likely to strike the common examiner."

An attentive consideration of the definitions proposed, together with a careful observation of the phenomena of insanity, will, I conceive, lead us to the conclusion, that there is general derangement of the mental faculties, to a greater or less extent ; including the powers of perception, of attention, and of memory, of imagination, and of judgment—all mutually dependent on each other ; and that there is not sufficient ground for exempting the latter faculty, the judgment, as some have proposed to do. For we find, that when erroneous perceptions are produced by disease of the external organs of sense, which is not uncommon, no delirium takes place, because the judgment, retaining its power, rectifies the delusion. Whilst in insanity, the judgment being involved in the general disorder, delirium is the natural consequence.

Although in a violent state of insanity, all the mental faculties participate in the morbid condition, yet this does not necessarily extend in the same degree to them all. The errors of perception occurring in delirium, are either referred by the patient to

objects of external sense, or visceral sensation, which have no real existence; or they are false abstract notions, or false perceptions of the qualities and conditions of persons and things, and of the patients' own relation to them. Instances of the latter are exhibited when a patient imagines that his friends have conspired to kill him, or that he is a king, or a beggar, or that he is possessed of a devil, &c.

Since, then, we find in delirium, whether febrile or insane, that, besides incoherence and confusion of ideas, we have erroneous perceptions of sensation, of reflection, and reasoning—in other words, delusions; and that these become the motives of unreasonable expressions and actions, and unnecessary deviation from the ordinary customs and habits,—without seeking to give any definition, it appears to me, that the general idea of the insane state, may be comprehended in the three phenomena of delusion, incoherence, and irrational conduct.

An ingenious friend has given me a table of equivalent expressions.

Erroneous Ideas.	*Equivalent to Error, in*	Thought.
Incoherent Discourse.		Word.
Unreasonable Conduct.		Deed.

I shall now consider, more particularly, those mental manifestations, or faculties, which are disturbed in delirium; and first of consciousness.

ERRORS OF CONSCIOUSNESS.

Most of the insane are unconscious of their being so; they believe themselves to be quite well; express surprise and indignation at the treatment they are subjected to; and, as their corporeal functions in general are in a healthy condition, they will say that nothing ails them. If their restlessness at night be alluded to, or if taxed with the commission of acts of violence, they ascribe the whole to the state of confinement in which they are kept.

In some cases, however, especially in the early stage of mental disease, the patients seem to be aware of their infirmity, and express themselves in corresponding terms; such as—"I feel that I am not as I used to be," "I know that I do wrong, but I cannot prevent myself," "Unreasonable ideas come upon me," "I do all I can to suppress them, but cannot succeed." In such a state of mental struggle, prompt medical assistance, and judicious moral management, may be of much utility.

The insane, after recovery, and even during convalescence, are, in general, conscious of the state in which they have been, and they are grateful for kind treatment then shewn to them. When these dispositions appear, they point out the return of reason; but, so long as a patient is unwilling to acknowledge his

previous disordered state, we ought to be very cautious, and ought not to confide too much in other appearances of amendment.

ERRORS OF PERCEPTION.

There are several terms made use of to denote those phenomena, which form a characteristic and conspicuous feature of mental alienations, such as delusion, hallucination, and illusion. The variety of these effects is almost infinite; they may exist with, or without, consciousness: although it is of the latter class only that I have now to speak.

Delusions manifest themselves in any of the senses; for the insane may be persuaded in their own mind that they see, hear, taste, smell, or feel, substances which are not actually applied to the organs of these senses. The delusions that most frequently occur, are those of the more complicated senses, vision and hearing; these have, therefore, been made the subject of greater attention than those of the other three senses.

Phantasms, as they are termed,—objects of the most extraordinary description, are frequently seen, and their existence believed in, by the insane.

Those who have hallucinations in hearing, will apply their ears to the floor, or the ground, as if to listen with more attention to the voices they hear,

and will keep up conversations with the persons whom they imagine to be speaking to them.

The sense of smelling is also subject to hallucinations. Some imagine that they are continually inhaling perfumes—others, again, imagine that everything has an offensive odour. Esquirol mentions the case of a patient in this state, who used to split a piece of wood into small pieces, and close his nostrils with them, in order to prevent the admission of bad smells. Caspar relates an instance of a young man who thought that he everywhere perceived the odour of charcoal and of smoke, and who refused nourishment in consequence, conceiving that everything offered to him was impregnated with this odour. And a lady, under my care, is in perpetual fear and trepidation from fancying that she perceives the odour of sulphur in everything around her, and that she is therefore about to be cast into hell.

In some of the insane, the sense of taste is perverted; they conceive that every sort of food is of a bad quality, and contains poison. The organs of these two senses, however (smell and taste), offer fewer changes than the other senses do.*

* Sir Walter Scott, in his letters on demonology and witchcraft, speaking of a lunatic confined in the infirmary of Edinburgh, says,—"The poor man's malady had taken a gay turn—the house, in his idea, was his own; and he thus seemed to account for all that appeared incongruous with his imaginary right of property. There were many patients in it, but that arose from the goodness of his disposition, which made him love to see the relief of distress. He went seldom or never abroad; but then, his habits were of a domestic nature. He saw little company, but he daily received visits from the most learned doctors in the city; and he could not, therefore, be much in want of

The sense of touch and feeling is also subject to delusions,—for instance, some insane persons are persuaded that thorns are thrust into their flesh,—that they are in contact with very hot or very cold bodies; as is the case with a lady under my care, who fancies that drops of rain are continually falling upon her head and neck. Some, also, fancy that they are continually suffering pain. One patient, labouring under a delusion of this sense, imagined that he had hold of a robber, whom he was frequently beating.

In many cases of insanity, there are delusions of one sense only; although, occasionally, all the senses may be implicated. There may likewise exist, at the commencement of the disorder, delusions of one particular sense, which change as the disease advances.

It might be supposed that, as we generally add the name of the sense to the hallucination, this organ of the sense necessarily performs an essential part in it; this, however, is by no means invariably, nor even often the case. Generally speaking, the organs of the senses perform no part in them; they are entirely dependent on the intellectual faculties—for we find that an insane person, who is blind, may imagine that he

society. With so many visions of wealth and splendour, one thing disturbed the peace of the optimist, and which would, indeed, have startled most bons vivans: he was curious, he said, in the selection of his viands, and in the choice of his cooks,—had three courses every day, besides dessert, and yet, somehow or other, everything he ate tasted of porridge! This dilemma could be no great wonder to the friend to whom he related this, who knew that everything he ate was made of oatmeal."

sees beautiful or curious objects, or that a deaf person may have hallucinations of hearing.

Errors of perception are, however, sometimes attended by affections of the organs of the sense, to which the phenomena have relation; and to this state, the term illusion, may be restricted. Thus, in illusions of vision, the eye may be inflamed, painful, convulsed, or paralyzed, from which causes an alteration is produced in the retina, and consequent false perception. Sometimes the ears are inflamed or painful, pulsation of the arteries, *tinnitus aurium*, or other sensation is felt, and the insane are led to believe that they hear voices, music, or other sounds. The same error of perception, modified in a similar way by the state of the organ, takes place in the senses of taste, smell, and touch.

In illusions of the sense of vision, the delirium has been produced by placing the person in a very light room, while this state of delirium has ceased on removing the light, or when the eyes have been bandaged. The eyes of a person, in a state of acute delirium, were covered with a bandage, by which means the raving was put a stop to, for a few days, and he slept well. The delirium, however, returning—the experiment of placing him in a dark chamber was then tried, and was attended with success.

Dr. Reil relates the case of a lady who became insane, and whose illusions, in day-light, and with her eyes open, was, that spectres of different forms and dimensions followed her every where. One day she

ran into her room, to lay hold of one of these supposed phantoms, when her attendant, in endeavouring to hold her back, accidentally applied her hand over the eyes of the lady, and found that so long as the entrance of light was intercepted, the illusion entirely ceased; but on admitting the light, the spectres were again seen.

Another instance, in which the illusion was connected with the impression made on the senses, occurred in a lady labouring under Puerperal Mania, who, when the light of the moon, or of a candle, was permitted to fall on her bed curtains, imagined that she saw beautiful paintings upon them, but as soon as the light was withdrawn, the paintings disappeared.

In another case, the patient conceived that he saw serpents about him, and carried a stick with him for the purpose of beating them away. As soon as his eyes were covered, these serpents disappeared.

The following is also rather a curious case.—An insane person refused to drink, assigning as a reason, that there certainly was a person in the bottle, containing the water, offered to him. The physician, during his patient's meal, observed that the light fell on the bottle in such a manner, that he could see his own likeness, in it; but on changing its position, the patient (not seeing his likeness) no longer refused to drink.

Dufour relates the case of a man, in whom, incipient cataract gave rise to mental derangement, by the obscurity in which objects were placed in consequence

of it. After some time, the cataract being fully formed, his reason was restored, and he submitted to an operation for its removal.

Illusions of the organ of hearing do not take place unless sound is produced, in which case, the hearing is incorrect and delusive. On this account, perhaps, it is that the effect produced in some by music, increases their delirium. On the other hand, hallucinations occur, when no noise is made.

In like manner the sense of taste may be perverted. On the commencement of an attack of insanity, we frequently find that derangement of the digestive organs exists. In many cases of this description, the patient refuses to eat or drink, and he conceives food or medicine offered to him to be poison. As this refusal and suspicion, then, occasionally depends altogether on the disordered state of the organs of digestion, the perversion of taste will be removed by appropriate treatment directed to those organs.

A practical remark here may be made, namely, that this refusal of food, in such cases, is owing to a cause quite different from that which leads an insane person to attempt suicide by abstaining from food. The latter case depends upon the derangement of the intellectual organ, more than upon that of the organs of the senses; and we are under the necessity, when this occurs, of overcoming his suicidal designs by strict watching, and by feeding him. We need have little apprehension of a patient, who alleges, as a reason for his refusal to eat, that he is afraid of being

poisoned; for when we shall have corrected the disordered state of the digestive organs, giving rise to perversion of taste, it is most likely that he will no longer refuse his food.

The sense of touch and feeling is, in like manner, subject to similar illusions.

These illusions of the external senses, are of a nature similar to those affecting the sensibility of the nerves of the internal viscera, which are numerous and diversified, and form the prominent features of hypochondriacal insanity. Persons labouring under this form of mental disorder, conceive that they have devils, sorcerers, worms, &c., in their bodies. In one case, I may mention (that of a female), the illusion is, that she has robbers within her, and is continually imploring them to have mercy, and to spare her life, for she has no money to give them. Uneasy visceral sensations, no doubt, are the origin of this delusion.

It has already been observed, that the delusions occurring in the insane state, are either erroneous perceptions, referred by the patient to objects of external and visceral sensation, which have no real existence, and which have just now been considered; or they are what we shall now consider, namely, erroneous, abstract notions of the qualities and conditions of persons and things, and of the patient's relation to them.

These delusive ideas are apt to be modified by the education, the habits, or the occupation of the insane.

A tutor mentioned by Dr. Haslam, conceived that he was a kinsman of Anacreon. A gentleman, educated for the church, imagined himself inspired—at one time, he conceived that he had got to Heaven, at other times he conceived himself to be in hell. He wrote a great deal, and was persuaded that his writing was the effect of inspiration.

This delusion of supposed inspiration, leads me to mention an instance of it, related by Dr. Esquirol,—interesting, as being connected with the history of Napoleon. A female patient in the Salpétrière, laboured under the idea that the Almighty had revealed to her, the misfortunes which threatened Napoleon. Impressed with the truth of this delusion, she contrived to write a letter to the palace. This ebullition of her insanity, actually received an answer from the chamberlain, appointing a day of audience. This answer was taken by Dr. Esquirol, who had it in his possession, at the time I attended his lectures, in 1816.

The class of delusions referring to abstract ideas, may be—

Firstly: In accordance with the general character of the patient—for instance, when an ambitious man becoming insane, conceives himself to be God, a king, or a prophet.

Secondly: They may be of a description quite opposite to that character—for instance, when a modest and chaste female becomes shameless and immodest in her delirium, and even solicits sexual intercourse, by

obscene words, and gestures; or when a person, of a naturally devout turn of mind, becomes impious, and blasphemous.

THIRDLY: The cause, giving rise to the delirium, sometimes gives a direction to the ideas—for instance, when a woman, betrayed by her lover, or abandoned by her husband, is firmly persuaded that all mankind are perjured wretches.

FOURTHLY: The subject of the delirium may be quite foreign to the general character of the individual, and to the cause, giving rise to the insane state; thus, the most incoherent, and extravagant ideas are produced, without apparent motive or connexion.

The error of perception, however, is seldom so great as to lead to a complete misconception of objects, or of the patients' relation to them,—for instance, an insane person seldom mistakes a man for a woman; neither does a man often forget that he is a husband, or a father, although he may, and frequently does, view his relations with suspicion and hatred. Occasionally, however, the deluded mind oversteps all bounds, and clears away all difficulties—for instance, I have known a woman conceive herself to be our Saviour, Jesus Christ.

Attempts to undeceive the insane, in regard to their delusions, are in general eluded. Thus, when an insane person tells us that he hears voices in the next room, or that persons are confined in it,—on attempting to undeceive him, by opening the door and pointing out to him the absurdity of his notion,

he will, in all probability, either persist in his assertion, that he still hears or sees the persons, or he may say something evasive, such as, that they have just left the place, or the like.

In all the phenomena which I have been considering, under the head of errors of perception, a little reflection will lead us to see that other powers of the mind, as memory, imagination, and judgment must participate more or less in the disorder.

ERRORS OF ATTENTION.

With regard to the state of the power of attention, it may be observed, that in Mania or general insanity, this faculty is in a state of great and continued mobility, and the patient is incapable of confining it. In Monomania, it has no longer that degree of mobility which is natural to it, but is absorbed in one train of ideas, whilst in Dementia, it is much impaired and enfeebled.

ERRORS OF MEMORY.

With regard to memory, the remembrance of events that occurred prior to the appearance of insanity, is, or appears to be, suspended in many cases—so much so, that patients seem to have entirely for-

gotten them. In Mania, memory is generally enfeebled or confused. In Monomania, it is sometimes uncommonly vigorous on certain subjects, and these, being incessantly dwelt upon, become, it may be, in an altered form, causes of increased mental disorder.

Some cases are related by an American physician, Dr. Silliman, showing the complete suspension of memory in insanity, particularly in Mania, together with the restoration of that faculty on recovery. A farmer, while employed in putting up a fence in a field, was seized with febrile delirium, terminating in Mania. During several years he continued in a state of mental derangement, in all which time, his mind did not seem to have been directed to the objects with which it was conversant, in a state of sanity. His mental powers were suddenly restored, and one of the first questions he put, on his recovery, was, whether the tools which he had been using at the fence, had been brought home. It appeared that they could not be found at the time he became insane, and at length were forgotten altogether, but upon searching the place where he said he had left them, they were actually found, although quite useless from rust and rottenness.

The remembrance of events, occurring during the delirium of insanity, is in many cases retained with astonishing exactness, considering the rapidity with which the ideas succeed each other, and the little attention that appears to be paid to them. And it has been remarked, that in those cases, where the patients

have been unable to give an account of the peculiar opinions which they had held during their insanity, yet remember very well any rough treatment that may have been employed, as well as any kindness which may have been shown to them.

ERRORS OF IMAGINATION.

With regard to imagination, it may be observed, that insanity frequently occurs in persons in whom this power is developed in an extraordinary degree.

In Mania, the imagination is highly fertile,—the mind is crowded with a mass of incoherent ideas, while the patient frequently mutters to himself or to his attendants. The imagination, full of unreal ideas, dwells but a short time upon any; but wanders with the greatest facility and rapidity through the visionary regions of its own creation.

In Monomania, the imagination does not possess this character of mobility; it is for the most part confined to a particular train of ideas. There is a preponderance of certain ideas, concentrated on the subject that characterises the particular variety of the disorder.

On the whole, considered as an active faculty, it may be said, that it is generally enfeebled; though, in some cases, invention is active, and has been

displayed in mechanics, poetry, music, and painting.*

Numerous instances are related by Pinel, in which great intellectual activity prevailed. In one case, the patient, in attempts to realise the problem of perpetual motion, invented several ingenious pieces of mechanism. And, as if the imagination acquired more brilliancy and strength, some madmen express themselves in discussion or in argument, or even in fits of furious raving, in a superior manner; and in one quite unusual to them previously to their insane state.†

More frequently, however, the imagination, in respect to inventive power, is enfeebled, or destroyed; and previous acquirements and accomplishments are entirely forgotten, or are but imperfectly retained.

* There is, at the present moment in Bethlehem Hospital, an artist, who, in the intervals between his fits of excitement, employs himself in painting and drawing; and displays extraordinary talent and skill in his designs.

† The following lines were discovered by my father, in the pocket-book of a gentleman under his care; and are very expressive of the depressed and melancholy state of his mind, from which he never recovered:—

"There is a winter in my soul—
The winter of despair;
Oh, when shall spring its rage controul?
When shall the snow-drop blossom there?
Cold gleams of comfort sometimes dart
A dawn of glory on my heart,
But quickly pass away;
Thus Northern Lights the gloom adorn,
And give the promise of a morn,
That never turns to day."

ERRORS OF JUDGMENT.

As regards the faculty of judgment, the greater number of persons labouring under Mania and Dementia, are incapable of comparing objects, and of forming a judgment of their qualities; their ideas are often incoherent, and without connexion, and they are quite irrelevant, having no relation to the present sensation.

We are not, however, to suppose that all the insane are in this situation, for many of those who are partially insane, are capable, not only of forming judgment, but they can reason well—that is, they can propose, and pursue various trains of ideas, which are well connected, although the grounds, or premises of their reasoning, be imaginary and false. They may have, not only the most perfect knowledge, and recollection of all the relations they stand in towards others, and of the acts and circumstances of their lives; but they may, and do, exhibit great acuteness in their remarks; they reason with subtilty, and their conclusions are just, and sometimes profound. But within the range of the disordered ideas, the premises from which they reason, are erroneous. Some monomaniacs, so long as the chord, on which their ideas are insane, is not touched, talk with self-possession and calmness, and in a manner apparently convincing; the

letters, also, which they write to their friends (an inspection of which, by the way, is, in many instances, a ready means of detecting suspected deviation from sanity) are sometimes dictated in so reasonable a manner, that they impose upon those to whom they are addressed, and lead them to think that they are unjustly confined.

ERRORS OF VOLITION.

With regard to volition, in those who are no longer under the dominion of reason, we may expect that the will—the power of forming resolutions in conformity to determinate motives, should present great anomalies. Thus, in some cases, the exertion of volition is carried on with a degree of energy, that appears surprising. Some will allow pins to be thrust into their limbs, or will inflict the most desperate wounds upon themselves, without complaining, or suffering the slightest expression of pain to escape them.

Many of the insane act without any assignable motive, and furiously attempt to overcome every obstacle to their unreasonable wishes. In other instances, the patient is altogether deprived of volition, as in extreme cases of Dementia and Idiocy. Some, prompted by delusions, are blindly and irresistibly impelled to do

certain acts; and others again, although aware of their infirmities, are, nevertheless, unable to restrain themselves.

The following case which lately fell under my observation, is an example. A studious gentleman, about sixty years old, became disordered in his mind thirty years ago, whilst studying abstruse subjects. He soon recovered from his attack; but he has lately had a return of his complaint, the symptoms of which are as follow. He cannot determine to do the least thing; he will dress, and undress himself twenty times in a day; he picks up stones and pieces of wood, and fills his pockets with them, observing that he cannot restrain himself from doing so. These he hoards up, supposing them to contain some hidden virtue; at the same time he has so nice a sense of honor, that he cannot bring himself to put off a piece of money, though quite good, if it has the slightest speck or discoloration in it; yet he can talk on all subjects, not excepting his own infirmities; and being sensible of doing unreasonable things, and not having the power of restraining himself, he was, by his own desire, taken to an asylum, where by judicious, moral, and medical treatment, he has been in less than a twelvemonth, completely restored. On searching his pockets, when received into the asylum, a quantity of stones and rubbish was found, mixed with gold, silver, and paper money, amounting to about £100.

ERRORS OF THE AFFECTIONS AND PASSIONS.

With regard to the state of the affections and inclinations, it may be observed, that a change in the former very frequently ushers in the disease; for instance, an affectionate mother will repulse or abandon her infant,—a kind husband forsake his wife,—or a dutiful child abuse his parent. Former love and affection are, without assignable motive, converted into hatred, indifference, or jealousy.

The inclinations and propensities are, in like manner, changed; and disgust of society, of occupation, and of former pleasures, takes place. So long as these altered inclinations continue, an apparent cure is not to be depended on; notwithstanding there may be every other appearance of restored reason.

The appetites, and the passions dependent on them, may become ungovernable, being no longer kept in subjection by a sense of propriety, or of right and wrong; and they frequently modify the character of the delirium. Thus, violent desire of sexual intercourse may produce the variety of partial insanity termed Erotomania; and sometimes the extreme degree of this state produces Satyriasis, and Nymphomania. The passion of pride raises the

madman to an imaginary throne,—that of ambition makes him a conqueror,—while that of vanity makes a queen. The passion of joy, grief, fear, and other powerful emotions, have corresponding effects in inducing varieties of partial insanity, to be afterwards more fully considered.

CHAPTER VII.

PHYSICAL SYMPTOMS AND DIAGNOSIS.

SECTION I.

SYMPTOMS.

I shall now proceed to consider the other symptoms generally occurring in the insane state, in addition to the disorder of the intellectual faculties, which I have endeavoured to describe in the preceding pages; and the first of these I shall notice, is

WANT OF SLEEP.

This is a very striking symptom of the insane state. Those who are in a state of Dementia or Idiocy, are

not generally affected by this symptom; but in those who labour under Mania, or Monomania, the sleep is almost always much disturbed, and sometimes totally lost for weeks together.

It frequently accompanies the disease from the commencement, and is particularly distressing in the incipient stage. It also, for the most part, continues during the active stage of the disorder; and may not cease, until its termination in convalescence, or in Dementia; so that madmen have been for months, or years, with scarcely an interval of rest or sleep. Their minds, however, appear to be in a passive state, so that ideas pass through them without exertion, whilst it lasts, and hence, probably, the capability of the mind enduring such a protracted state of waking.

There may be other causes, which, together with the diseased action in the brain, contribute in some measure to produce this state of continual wakefulness; such as the agitation of the patient himself; the nature of his delusions; pains, or uneasy sensations in the head; and lastly, (where numbers are kept together) the noise and cries of other patients.

As already observed, some cannot fall asleep at all; others, when they do slumber, are very frequently troubled with frightful dreams.

The cessation of this state of disturbed sleep, with an abatement of delirium, is, in general, a sign of convalescence. But the return of quiet sleep, without a corresponding abatement of delirium, is by

no means so favorable, since it not unfrequently denotes a termination in Dementia. And, again, if wakefulness continue, notwithstanding an evident amendment in other respects, or if during convalescence, it returns, we may conclude that the patient is not progressing favorably, and that a relapse is to be apprehended.

Persons who feign insanity, are unable to simulate this symptom for any length of time.

AFFECTIONS OF THE HEAD.

Another assemblage of symptoms, occurring in the insane state, are certain affections of the head. In some cases, deep seated pain is complained of for months, before the occurrence of delirium. As the disorder increases, and the stage of excitement prevails, this pain is less complained of, although great heat about the head, and the activity of the circulation, indicate, that the causes from which it originated, have not diminished in intensity. As convalesence takes place, this symptom of headache abates. When it remains after the diminution of the other symptoms, therefore, it must be regarded as very unfavorable.

A sense of tightness, as if the head were encircled with a cord, is not unusual; a deep seated pain, with throbbing, and a sense of fulness, increased by rapid

motions of the head, is another form of this symptom. When affecting one side only, this internal pain has preceded insanity accompanied by general paralysis.

The reluctance of the insane to continue in a recumbent position, is probably owing to an increase of uneasy sensations in the head; and the inclination to lean the head against a wall, or to press it with the hands, proceeds, no doubt, from a similar cause. These symptoms generally subside when the disease terminates in Dementia.

AFFECTIONS OF SENSATION.

The sensibility, in some cases of insanity, is much diminished, particularly in Dementia and in Idiocy.

By a comparatively small number, heat, cold, wounds, &c., are endured, without their appearing to regard them.* In Mania, and Monomania, likewise, during the period of excitement, we occasionally meet with patients who are unsusceptible of impressions, and who, in the depth of winter, will walk about without shoes or stockings, and with scarcely any covering to their bodies, exposed to all the severity

* Formerly, it was considered that all insane persons were insusceptible of the effects of cold. Even Morgagni inferred that two women could not have been insane, because the one was attacked with sore throat and the other with inflammation of the thorax, when the weather was very cold.

of the weather. A remarkable instance of this occurred in a female, named Theroine de Mericourt, one of Robespierre's mistresses, who became insane, and was sent to the Salpétrière. A peculiar feature of her derangement was, that she would not lie down in bed until she had drenched it with a bucketful of water. Pinel also mentions the case of a man, confined in the Bicêtre, who, in the depth of winter, when the thermometer stood at 20, 25, and even 30 degrees below the freezing point, had such a sensation of heat in his system, that he could not bear a single blanket, but remained seated all night on the frozen pavement of his cell; and scarcely was the door open in the morning, when he ran out in his shirt, and applied quantities of snow to his chest, and allowed it to melt with a delight, like that we experience in breathing a cool air during the dog-days. It has been the observation of such cases as this, which has led to the popular and dangerous error of supposing all maniacs to be insensible to cold, and therefore not needful of shelter and clothing to protect them from the weather,—a position much at variance with fact; and the blind adoption of which, has often been the cause of severe suffering.

During the paroxysm of furious insanity, or of determined suicide, the application of the most stimulating substances (even that of fire) is sometimes borne, without apparently producing the least uneasiness.*

* A Venetian shoemaker, in a fit of religious enthusiasm, emasculated him-

A patient of mine, in Bethlehem hospital, some years ago, attempted to commit suicide in the most determined manner. He watched his opportunity, while the attendants were out of the ward, and then went, and deliberately laid the back of his head upon the fire, and held it there, until a large portion of the scalp was burnt away, without flinching, or apparent suffering. Very extensive sloughing and exfoliation, of course, ensued; the patient, however, recovered from the effects of the injury, without seeming to suffer any particular pain, and lived twelve or thirteen years afterwards. His skull is now preserved in the museum of St. Bartholomew's hospital, where it will be seen that nearly the whole of the parietal bones had exfoliated. On making a *post mortem* examination, it was found that the brain was protected from injury, by a tough and dense membrane stretched across the opening.

This state of diminished sensibility to impressions made on the body, during the excited stage, must be borne in mind; for, as many of the insane make no complaint, their sufferings cannot always be ascertained by inquiries made to themselves. We have,

self, from the effects of which he with difficulty recovered. Afterwards he chose to imitate the crucifixion of our Saviour. He first made a large wound in his side, and then stretched his body, and attached it to a cross by nails, driven through his feet and hands, and thus suspended himself in front of his house. He was taken down, and cured of his wounds, but not of his insanity. The surgeon, Cæsar Ruggiéri, who attended him, and published his case, reported that, in his lucid intervals, he suffered cruelly from the agony of his wounds; but, during the exaltation of his delirium, he appeared to feel no pain.

therefore, nothing to trust to, except our own careful investigation.

Observing the position of an insane person, will sometimes greatly assist us in discovering the seat, as well as the nature, of any pain which may exist.*

The stomach is, also, not unfrequently insensible to the action of ordinary emetic medicines. I have now under my care, a young lady, who required a whole drachm of tartar emetic to be administered, before its nauseating effect was produced.

The intestines are frequently in the same way, totally insensible to ordinary medicinal doses of purgatives.†

* Among the prognostics, therefore, the most unerring is attitude. Ease, and freedom of position, lying on either side, and breathing softly and regularly, denote health ; supination denotes great prostration of strength; lying on the belly is a sign of pain in that part, and is often a prelude to delirium. Maniacs, particularly, and some melancholiacs, have a decided partiality to be sitting when they are not suffered to be at large. Some sit crouching with their knees folded towards their chins. Many have a positive horror of the recumbent posture; and it is prudent to attend to this predilection, for it often proceeds from a tacit consciousness, that a horizontal position induces too great a flow of blood to the brain. Some obstinately adhere to standing erect. These are sometimes fond of leaning their heads against a wall, which position, I believe, is induced from the adventitious relief which the contact of the head with a cold substance affords. Again, some certainly prefer lying with their heads lower, even, than their bodies. A furious female, I saw in Bethlehem, a few years ago, preferred kneeling down, and keeping her head in contact with the ground. But in this case, I remarked that she placed it over the grating of the drain in the cell, as if she experienced relief from a draft of cold air, pouring on the scalp. Indeed, maniacs often delight in exposing themselves to a cooling air and falling showers of rain.—*Burrows on Insanity, p.* 218.

† The muscular power, exercised by some maniacs, is often mistaken for proof of real strength; and hence a depleting practice is adopted, fatally injurious to the patient. The fury which prompts this violent exertion may be abated, or even subdued, by these means; but, it should ever be remembered

This state of diminished sensibility, is often succeeded by a contrary state—that of extreme susceptibility of impressions; in which, the slightest disagreeable sensation, especially that of cold, is severely felt; and warmth is sought after with avidity: so much so, that great care is necessary to secure fire-places with guards, to prevent accidents.

The insane have frequently been supposed to have a remarkable power of resisting the contagion of fever. This opinion may, in some degree, depend upon their being, in a great measure, secluded from the chance of infection; and also from their being exempted from the influence of fear; which powerfully promotes the effects of infection and contagion.

AFFECTIONS OF MUSCULAR MOTION.

Besides the symptoms already enumerated, the insane are subject to affections of muscular motion.

In the fits of fury, which occasionally occur in the insane and epileptic states, the muscular energy is sometimes increased to a prodigious extent, and the patient can scarcely be restrained by the combined efforts of several men. At other times the most per-

that a state of exhaustion naturally follows these paroxysms, and that the vital power, which the depletory measures have subtracted, may then be wanted to prevent worse consequences.

fect inertness and aversion to motion are observed; and the patient preserves for hours, and even for days, not only the same situation, but the same bodily position. At other times, again, incessant activity, and restless agitation are noticed, and the patient walks to and fro every day, for successive hours, taking many times the amount of exercise, which, when in health, would have fatigued him beyond endurance. The dependence of these symptoms upon the condition of the nervous system, will be apparent to every one, who recals, for a moment, the bodily agitation, impatience of one position, and increased muscular power, consequent upon a fit of anger, or of mental excitement. Occasionally, however, the muscular disturbance seems so disproportioned to the condition of mind, as to afford good grounds for believing it to have its source in an affection of some cerebral or nervous part, more exclusively appropriated to voluntary motion.*

By far the most frequent affection of muscular power, however, is debility; a general or partial loss of the power of voluntary motion. Palsy sometimes makes its appearance in the commencement of insanity, particularly when it first shows itself in ad-

* A curious reciprocity of influence is frequently observed between the several passions, and the visceral irritations, which they excite. "For example," says Broussais, who notices this fact, "if, on the one hand, fear and surprise cause palpitations of the heart; so, on the other, do palpitations from a physical cause, excite the feelings of fear and surprise. The same is the case with the stomach; all disagreeable moral impressions, accompanied by a tendency to anger, make it suffer; and in like manner, derangement of the stomach, is apt to induce sadness and impatience."—*Broussais de la Folie, p.* 462.

vanced life, and is a most unfavorable symptom. It is, however, more commonly met with in Dementia and Idiocy. Partial paralysis, exhibited in want of control over the sphincter muscles of the mouth, rectum, and urinary bladder, sometimes occurs, without palsy of other parts supervening.

Generally speaking, it may be said, that in Mania and Monomania, the functions of the muscular system remain unimpaired, unless the individuals are attacked by other diseases—presenting in this feature a striking difference from the acute delirium of fever.

PHYSIOGNOMY.

The insane, likewise, exhibit peculiar appearances and changes in the physiognomy. The lines of the face change their direction; the whole appearance, in some cases, is deformed, and scarcely to be recognised, and the expression varies according to the different passions and ideas which occupy, and agitate the mind, the character of the delirium, and the period of the disease. Thus, the appearance of the idiot is silly, and destitute of meaning; that of the maniac, is as much agitated, as his mind, and sometimes is convulsed. In some, the countenance resembles that of a drunken person. The most opposite combination of expression, also, is occasionally produced by the vain

attempt of the muscles of the face, to represent the rapid succession of ideas and emotions.

In Monomania the physiognomy varies according to the predominant character of the delusion;—thus, in the melancholic variety, the features are contracted, and give the impression of grief, or of deep abstraction. The humble devotee prays with eyes bent upon the ground, or lifted up to heaven; and the insane king assumes a proud and haughty air. The determination to commit suicide, also, may be inferred from a peculiar expression of the eye.

It is, however, impossible to convey in words, very accurate ideas on this subject. Long study of the disease itself, will alone enable us to become proficient in the discrimination. Much assistance will be afforded to the student, by a careful study of the plates at the end of this work, which have been selected from a collectionof many hundreds, in my possession, made with a view to throw light on this most interesting subject.*

Numbers 1, and 2, represent a case of Mania, occurring at the very early age of six years. The first portrait being taken a few days after the admission of the patient into Bethlehem Hospital, and the other, after recovery at the end of about two years.

In these two portraits, any very characteristic expression, is hardly to be expected; they are more in-

* See also, "Physiognomy of Mental Diseases," by Sir Alexander Morison. 1843.

teresting as exemplifying the occurrence of the disorder at so tender an age. On comparing the two together, however, a considerable improvement in expression and general appearance will be observed in the one last taken. On referring to Number 17, the portrait of a mischievous idiot, at present under my care, at the Surrey Lunatic Asylum, a striking difference between the two forms of mental disorder may be noticed. In this case, the whole figure, attitude, and expression, convey an accurate idea of the unmeaning gaze, and want of purpose so characteristic of Idiocy. Numbers 3, 4, 5, 6, 7, and 8, are illustrative of Mania. In Number 3, the case was complicated with a strong and unceasing propensity to the commission of unnatural crime. This patient had formerly been a butler in a gentleman's family, and was sent to the Surrey Lunatic Asylum, from Horsemonger-lane Prison, whither he had been sent, in consequence of attempting to gratify his unnatural desires. The present portrait was taken a short time before his death, when, although extremely weak and reduced, the violence of the cerebral excitement continued unabated. Number 5, represents a deaf and dumb female, who was admitted into Bethlehem Hospital, labouring under Mania, arising from puerperal causes. Number 6, represents the same patient cured after a few weeks treatment. Numbers 7, and 8, are portraits of the same patient,—the first representing her in a state of wild and incoherent excitement, and the last being taken after her restora-

tion to sanity. Number 9, is the portrait of a patient confined in the Hanwell Lunatic Asylum, in whom the insanity made its appearance at a very advanced age; at the time the likeness was taken, she was ninety-six years old. Number 10, represents a poor female confined in Bethlehem Hospital, labouring under an attack of partial insanity, accompanied by depression, and a strong disposition to suicide. Number 11, represents the portrait of a patient in the Surrey Asylum, whose only delusion consists in the idea, that he is wasting away, and will be quite gone before night. The fixed and immoveable expression of his countenance is very expressive. Numbers 12, and 13, represent two patients of mine in Bethlehem Hospital, labouring under acute Dementia. Number 14, is the portrait of the last patient cured. Numbers 15, and 16, represent two cases of the chronic form of Dementia,—both very characteristic. The first arises from epilepsy, and is marked by a disposition to violence. The whole attitude and appearance of the last portrait, is extremely characteristic of the entire absence of mind in the last stage of Dementia. Number 18, is the portrait of an idiot—the extreme smallness of his head presenting one of the most characteristic phenomena of the disorder. Numbers 19, 20, and 21, represent portraits of patients in a state of Dementia, with the complication of general paralysis. Numbers 19, and 20, representing the same individual,—the second portrait being taken two months after the first. Number 21, represents a female in the last stage, when every

vestige of mind appears gone, and when the body is covered, in almost every direction, with large and sloughing bed-sores.

DISORDERS OF DIGESTION.

At the commencement of an attack of insanity, there is, in many cases, some disorder of the digestive organs, denoted by loss of appetite, and thirst. In some, the appetite is voracious,—the food is swallowed without mastication, and, in some cases, the insane even ruminate their food. A gentleman, under my care, at this present time, presents this curious appearance.

The tongue is frequently loaded, and often tremulous, as in hysterical cases. The nose and lips are often dry, but sometimes there is a preternatural secretion of viscid mucus. In these cases, the saliva is very abundant, and drops from the mouth.

Pains are occasionally complained of in the stomach and bowels, or, if not complained of, yet (as before observed), the patient, from his attitudes or gesture, appears to suffer.

Costiveness is of very frequent occurrence; as is, also, chronic inflammation of the mucous membrane of the intestinal canal.

STATE OF THE SKIN.

Many of the insane perspire with difficulty; and in some cases, especially where depression prevails, there is a partial, cold and clammy perspiration. Occasionally, also, a very disagreeable smell is perceived about their persons, which is most probably caused by want of proper cleanliness,—sometimes, no doubt, by the state of the perspiration. It has been compared to the smell of cat's urine, or of henbane, in a state of fermentation. This odour, as may be supposed, is strongest in the morning, before the patient's room is cleaned out.

In violent mania, a preternatural heat of the surface, and a hurried pulse, are very common. But when the heat is general, or when there is an accelerated pulse, it is usually the effect of vehement muscular exertion. From this state of the skin and pulse, it may be inferred that actual fever is present. But the pulse is often slow and small, when the skin is hot; and if blood be drawn, it will not present any indication of that condition.

SECTION II.

DIAGNOSIS.

Before proceeding to describe the different varieties of insanity, I propose calling your attention to a few of the chief distinctions which exist between the delirium, accompanying certain diseased states of the body; and that which is characteristic of insanity.

The first variety, which has not inaptly been termed Acute Delirium, is occasioned by violent affections of the head,—as inflammation of the membranes, or substance of the brain, mechanical injury, or insolation; in some of which, delirium is the principal symptom: or it is caused by general bodily disorder,—as fever, inflammation, &c. In such disorders, the delirium is frequently preceded by increased acuteness of the sensations, and by an unusual number of ideas passing through the mind, to which the patient sometimes gives utterance; sensible, at the same time, of being scarcely able to control himself in so doing.

In a dream, we know that the sleep is rendered imperfect, by a single idea, or train of ideas occupy-

ing the mind, so that it is unable to receive other ideas, and compare them; and cannot, therefore, detect the delusion, until the state of sleep terminates: when the individual, by comparing his waking thoughts with those of his dream, is enabled to detect the incongruity of the latter. This is nearly the case, also, in febrile delirium,—the patient, with open eyes, intently fixed, as if he perceived persons and things not visible to others, is little, if at all, conscious of the existence of surrounding objects—wandering thoughts and delusive perceptions quickly succeed each other. At the same time, a powerful appeal will recal the mind to a transient appearance of reason, and the patient may be roused so as to answer questions. But as the power of comparing ideas is lost, he does this without reflection, and will immediately relapse into the previous train of thought, or into incoherent wandering.

Under another form of this febrile delirium, the patient is incessantly expressing the ideas which are, as it were, rushing through his mind, the train of which is not to be interrupted by questions, or external impressions, as in the former case. The patient's eyes are wild and sparkling, are in constant motion, and are very sensitive of the light.

Although a patient may destroy himself, or others, in a paroxysm of delirium, there is no discrimination of persons or things, no determination of purpose, and all his actions and words appear to be the result of unpremeditated impulse.

Acute delirium can only be regarded as a symptom of another disorder, and not (as in insane delirium) the primary one. It serves rather to assist in the prognosis, than the diagnosis, of the disease.

Generally speaking it may be considered as an alarming symptom; for, before it makes its appearance, the disorder must have acquired a considerable degree of violence: and, from whatever cause it proceeds, if its violence does not subside, coma, apoplexy, and death, ensue. When it occurs in the chronic forms of disease, its presence must be regarded as a most unfavourable symptom; and is generally the prelude to a fatal termination. It then appears to be more owing to gradual extinction of the intellectual energy, than to excitement in the brain.

Insane delirium is distinguished by the absence of fever, and of any specific local stimulus. When it does proceed from the latter cause, the delirious paroxysm will continue, even when the specific stimulus is removed. There is sometimes an increase of heat of the surface, but this heat is oftener local and confined to the scalp, or it is the result of violent muscular exertion. It has not the characteristics of pyrexia, and there is no relation between the increased heat and the attendant mental disturbance. Besides, there is usually profuse partial perspirations, especially about the throat and neck; and the muscular force is not at all regulated by the degree of mental disturbance.

When there is perfect delirium without fever, but with a quick pulse, and complete confusion of ideas,

some profound lesion of a vital organ is to be suspected.

Pure Mania is alleged by some, not to be always free from real fever; but if fever be detected, it is certain that there must also exist some other disorder whence it originates, and hence a suspicion ought to arise, that the case is not one of proper Mania.

When delirium is protracted after the exciting cause has ceased, it assumes the maniacal character.

Our diagnosis will be much assisted by paying attention to the various distinguishing marks, which have been collected in the following form by Georget, and which are so arranged as to be readily available.

First: Acute delirium is not an essential symptom of that disease in which it occurs, since that disease may exist without it.

Insane delirium is the essential, and often the most prominent symptom, for there may be little or no disturbance in the constitution. The functions of the body may undergo little derangement—at least in the stage of excitement.

The voluntary motions may not suffer, and the patient may be able to walk about, and to eat and drink as usual.

Secondly: In acute delirium, the intellectual functions appear to be suspended, rather than perverted. The patient can scarcely utter a few unintelligible and unconnected words, and these, as well as his actions, are without any relation to the surrounding objects—the senses, too, perform their functions

very imperfectly, or not at all, and the natural affections do not exist.

In the delirium of insanity, the intellect is seldom totally overpowered; some of its functions, only, being affected. It is excess of action, deviation, and want of harmony of these faculties; or preponderance of some fixed and assumed idea, that characterises general or partial insanity. By the partially insane, a connected discourse is often kept up, and they are frequently capable of maintaining the discussion of an argument. The senses, also, perform their functions, because we find that perception exists, although it may not be just, and the mind is awake to objects which are present.

THIRDLY: In acute delirium the mind is wholly absorbed, as in a dream, with its own creations, and preserves the power, when strongly roused to momentary recollection, of directing itself to its situation.

In insane delirium, truth and error are blended together, and are not distinguishable by the patient.

FOURTHLY: In acute delirium, volition, as well as consciousness, is suspended—the patient being, for the most part, in a state of stupor, and when he does attempt an intellectual effort, he appears as if he were in a dream.

In insane delirium, volition is often powerfully exerted, and is influenced by motives in the actions it produces.

FIFTHLY: Few of the circumstances, that may have occurred in the course of acute delirium, are recol-

lected on recovery, or are but very faintly remembered.

In insane delirium, a recollection of all that has passed is frequently retained.

SIXTHLY: Acute delirium is not hereditary, any more than is the disease in which it may occur; nor is it announced by signs of predisposition, nor of imperfection.

Insane delirium is very frequently hereditary. The greater number of the insane, or of those destined to become so, exhibit traces of it in the general character of the mind, their manner of life, and of study, &c.

SEVENTHLY: Acute delirium being only the symptom of another disease, its duration is dependent on that of the primary one; and, as this does not remain long in such a state of violence, as to keep up the delirium, a restoration to health, or a termination in death, soon puts a period to the delirium; which, therefore, may only last a few hours or days, and rarely extends beyond one or two weeks.

In insane delirium, the duration is very indeterminate. Not being a mortal disease, the patient may live a great many years,—indeed, for the most part, he is not restored to reason until some months, or a year, or even a longer time has elapsed.

EIGHTHLY: Acute delirium cccurs in the acute diseases, common to childhood.

Insane delirium is scarcely known before the approach of puberty.

NINTHLY: Acute delirium does not present any

directly curative indications,—in particular, we never think of removing it by moral means, because, intellect being nearly suspended, no effect could be looked for from them.

In insane delirium, the treatment is very much directed to injured function; it being on this principle that moral means operate.

Tenthly: When once the health is well-established, a relapse of acute delirium is not to be dreaded.

In insane delirium, the cure is not always durable; relapses, or recurrences, are frequent, and the brain is easily disturbed by slight causes.

Lastly: The causes of acute delirium are either from remote diseases, or from different influences, which give birth to cerebral affections, of which this is the symptom. The causes of insane delirium act directly upon the intellectual functions of the brain.

CHAPTER VIII.

CLASSIFICATION.

Diseases affecting the intellectual functions, present themselves to our observation in a variety of forms, which have been arranged into certain divisions, founded on the modifications of the delirium, or disorder of these functions. In considering them in this view, however, we must bear in mind, that there is an insensible gradation of one genus into another; so that at times, some difficulty may be experienced in classifying them.

Much diversity of opinion exists as to the best mode of arrangement, or the "Nosology" of mental diseases.

That mode, which arranges disorders according to

This arrangement, independently of the gratuitous distinction between ideas and notions, tends to create confusion in the mind of the practitioner, by its very numerous and ill-defined divisions, and can be of no practical utility in the medical treatment.

Dr. Crichton gives the following methodical distribution of mental disorders:—

Class NEUROSES, Order VESANIÆ.

GENUS I.—DELIRIUM.

Species 1.—Mania furibunda.
„ 2.— „ mitis.
„ 3.—Melancholia.

GENUS II.—HALLUCINATIO.

Species 1.—Hypochondriasis.
„ 2.—Demonomania.
„ 3.—Vertigo.
„ 4.—Somnambulismus.

GENUS III.—AMENTIA.

Species 1.—Fatuitas.
„ 2.—Memoria imminuta.
„ 3.—Perceptio imminuta.
„ 4.—Vis idearum associandi imminuta.
„ 5.—Vis fingendi imminuta,
„ 6.—Vis judicandi imminuta.

Dr. Rush divides Insanity into PARTIAL and GENERAL. The former he further subdivides into—first, TRISTIMANIA, including Hypochondriasis and Melancholia, in which the individuals entertain false ideas respecting their person, their affairs, or their condition; and secondly, AMENOMANIA, in which the delirium is of an exciting and exhilarating character.

The subdivisions of general insanity are as follows: First, MANIA, with violent general delirium, and propensity to furor. Second, MANICULA, a milder stage of the preceding, corresponding to Chronic Mania, or incipient Dementia. Third, MANALGIA, or general torpor of the body and mind. Fourth, DISSOCIATION, or a state similar to the general Dementia, of Pinel. And Fifth, FATUITY, or idiotism.

Dr. Spurzheim, (considering the causes and nature of mental disorders to be founded on Dr. Gall's views of the faculties of the mind, and functions of the brain), conceived that whatever portion of that organ is the seat of diseased action, the manifestations of the corresponding mental faculties, are proportionally deranged; and in this way, he endeavours to account for the peculiar subjects and passions, on which the insanity may exist. He supposes that portions of the brain, may acquire increased activity and power, and be irresistible to the will, and thus become the causes of mental aberration, as well as moral delinquency; as was, long ago, pointed out by Dr. Rush,—that, on the other hand, a morbid state of inactivity, may exist in those portions of the brain, corresponding to several

or all, of the mental faculties; that this may be congenital, producing Idiocy; or that it may be the effect of accidental causes, giving rise to Dementia—and that the manifestation of the mental faculties may be altered or changed in their quality.

On these assumptions, four divisions of insanity have been proposed by him. As follows:—

First: Alienation, including Mania and Melancholia, in which the manifestations of the faculties are deranged, and the intellect is incapable of distinguishing the derangement.

Second: Irresistibility, in which any faculty becomes so powerful and active, that the will has no influence on the actions.

Third: Idiocy, in which there is diseased inactivity of any faculty of the mind from birth, which may be either general or partial.

Fourth: Fatuity, in which the individuals have once manifested the powers of the mind, but have lost their activity by any eventual cause; which also may be either general or partial.

In examining the brains of those who have laboured under only one variety of partial insanity, however, the diseased appearances observed, such as inflammation, or its consequences, &c., are rarely, if ever, confined to one convolution, but are more or less diffused over a number, and are particularly to be noticed in the investing membranes.

A more extensive arrangement has been laid down by Professor Heinroth, in his celebrated treatise on

derangement of the mental faculties. The disorders of the mind, according to this writer, are only limited in number and in kind, by the diversities which exist in the operations of the mental faculties. "The mental operations" says he, "are of three distinct kinds, and are referred on the testimony of consciousness, to three different departments in our inward nature—namely, to those of the feeling, or sentiment, *(des gemüths)*, the understanding, and the will. The emotions of joy, grief, pleasure, and pain,—the mental processes of reflection and contemplation; and the voluntary act of self-determination, are three kinds of mental phenomena, which, as they present themselves to our inward consciousness, are so clearly and strongly distinguished from each other, that it is impossible to confound them. If the cause of derangement is in relation to one of these manifestations of mental existence,—and to one or other it must belong, since the mind is ever occupied with phenomena related to one out of the three classes,—we have only to inquire, to which modification the disorder actually refers itself; or, whether it affects the feelings, the understanding, or the will. Since one of these has possession of our consciousness, or is, at least, predominant at every point of time,—whichever function of the mind happens to be that which is falling into disorder, by it, the form of insanity is determined. Thus," continues he, "we have three classes of mental diseases, corresponding to the three departments of our minds."

His system of classification is as follows:—

FIRST KIND OF MENTAL DISORDER.

Disorder of the Moral Disposition.

FIRST FORM: EXALTATION, or excessive intensity.
Undue vehemence of feeling.
Morbid violence of the passions and emotions.

SECOND FORM: DEPRESSION.
Simple melancholy dejection, without illusions of the understanding.

SECOND KIND OF MENTAL DISORDERS.

Disorder of the Intellectual Faculties.

FIRST FORM: EXALTATION.
Undue intensity of the imagination, producing mental illusions.

SECOND FORM: DEPRESSION.
Feebleness of conception of ideas.
Imbecility of the understanding.

THIRD KIND OF MENTAL DISORDERS.

Disorder of the Will.

FIRST FORM: EXALTATION.
Violence of will, and of propensities.
Tollheit, or madness without lesion of the understanding.

SECOND FORM: DEPRESSION.
Weakness or incapacity of willing.
Moral imbecility.

The arrangement proposed by Drs. Pinel and Esquirol, founded on the morbid manifestations of the mental functions, appears to me to be best suited to the present state of our knowledge of the brain and of its faculties. And although (as I have before observed) some cases may occasionally occur in which a difficulty of classification is found, still, out of many thousands which have come before me, the proportion of these is so small, as to offer no material objection to the arrangement.

It is as follows: —

1st. MANIA.	*Characterized by general delirium.* The mind is vigorous. The ideas are abundant, erroneous, wandering,—not under control. The manners are violent, excited, vehement.
2nd. MONOMANIA.	*Characterized by partial delirium.* The mind is vigorous. The ideas are few, erroneous, fixed, not under control. The manners are in conformity with the prevailing idea, or train of ideas, as of pride, fear, grief, &c.; or propensities, as of suicide, &c.

3rd.
DEMENTIA.

Characterized by weakness of the intellect, induced by accident, or age. The mind is weak. The ideas are confused, obscure, vague, incoherent, not fixed. The memory is impaired. The manners undecided, childish, silly, easily led. The patients are ignorant of time, place, quantity, money, property.

4th.
IDIOCY.

Characterized by partial or total absence of the intellect, either congenital, or occurring in early life. The mind is not developed. The ideas are few, or none. The sensibility is obtuse. The manners are childish, with occasional transient gusts of passion. The countenance is vacant. The articulation and the gait are imperfect.

CHAPTER IX.

THE INCIPIENT STAGE.

The appearance of insanity may be either sudden, or gradual. In the former case, the mental shock proving so violent and overwhelming, as immediately to derange the intellect, and occasion delirium. In this manner, violent and unexpected grief or terror, occasionally produce madness.* In by far the greater number of cases, however, the causes of disease act in a gradual and repeated manner, so that the delirium

* "In this case," says Georget, "madness breaks out at the end of some hours, or some days, after a state of anxiety and uneasiness, with headache, sleeplessness, agitation, or depression, and threatening of cerebral congestion; the patient begins to babble, cry, sing, and becomes agitated and wild. He is then taken for a person in a state of intoxication, and the mistake becomes apparent, only after examining the previous circumstances, and the duration of the malady."

creeps on by degrees, and sometimes so imperceptibly, as to be established before its existence has even been suspected. In the history of the case, as given by friends and relatives, we frequently arrive at the fact, that the first decidedly insane act of the patient, which gave them alarm, had been preceded by several others, which had till then passed unnoticed, or had been attributed to some other cause than the right one.

Patients in this state, frequently struggle with their disordered ideas, and endeavour to banish them from their minds; but as the disease encroaches, their resistance becomes more and more feeble, and (while still possessing sufficient control to conceal their real state from their friends), their habits and inclinations become imperceptibly changed.* One

* Georget's description of the incipient stage of the disease, is so expressive that I shall make no apology for inserting it here. "In the other case," says he, "thought only becomes affected gradually, and often very slowly. The patient is generally conscious of some disorder in his intellectual faculties; he is beset by new and odd notions, and by unusual inclinations; he feels himself changing in his affections; but at the same time, he preserves a consciousness of his condition, is vexed at it, and tries to conceal it; he continues his occupations as much as he can; and lastly, as many people do in the first stage of intoxication, he makes every effort to appear reasonable. Meanwhile his health continues to give way, and he either sleeps less, or loses sleep altogether; the appetite diminishes, or disappears; sometimes digestion is difficult, and constipation supervenes; *en bon point* decreases, the features alter, the monthly discharge becomes irregular, weak, and at last is suspended. At the same time the bystander remarks something unusual, and even extraordinary, in the tastes of the patient, in his habits, his affections, his character, and his aptitude for business; if he were gay, and communicative, he becomes sad, morose, and averse to society; if he were orderly, and economical, he becomes confused, and prodigal; if he had long abstained from the pleasures of love, he becomes the victim of insatiable desires, and either seeks to associate with the other sex, or has recourse to disgraceful practices; if he were moderate in his political and religious opinions, he passes

will give himself up to extravagant speculations, which terminate in failure; and shortly afterwards become decidedly insane. This failure is not necessarily, however, the cause of his disorder, as the friends are apt to imagine; for the speculation itself may only have been one of the first effects of pre-existing insanity. Another, suddenly becomes very devout; he hears a discourse, or reads a book, which

to an extreme exaggeration in both; if he were open and candid, he becomes suspicious and jealous; if a wife, she regards with indifference her husband and children; the merchant neglects his business,—tears and laughter succeed each other without apparent motive; and the exterior of candour and modesty, gives place to an air of conceit and assurance, which, especially in woman, astonishes us. But all these phenomena are less prominent than they appear to be here, and, unless the patient has been insane before, no one can suspect the nature of the ailment which torments him; all the questions put to him lead to no result, except that of fatiguing, and giving him pain, for the ignorance which prevails, in regard to insanity, leads his friends to indulge in offensive insinuations, and to charge him with frivolous accusations, from not perceiving that he is under the influence of disease and not of reason. Sometimes the appetite remains entire, or is speedily recovered as well as digestion, nutrition, &c., and it is in these circumstances, that the conduct of the patient gives rise to a host of interpretations, on the part of the friends and the public.

This period of incubation of mental alienation, during which the true state of the patient is generally misunderstood, or not appreciated, may last a long time. M. Pinel relates, that a man who believed his wife to have been ill only six months (the period of invasion of furious delirium), agreed, after a multiplicity of questions, that the disease must have been going on for fifteen years. The same author, mentions elsewhere, that in several instances the maniacal, or melancholic state, has begun, four, six, ten, or even fifteen and twenty years previously.

It is often easy to go back months or years in this way, and even finish by discovering that circumstances, taken for causes by the friends, are frequently only the consequences of unobserved disease. In fact, it often happens at that period of the malady, that a slight contradiction or paroxysm of anger, or some other cause, equally insignificant to a person in good health, provokes the immediate and complete subversion of reason, and gives rise to mistakes as to its true cause and duration.—*Dict. de Medicine, tom.* 9, *p.* 244.

leads him to imagine himself to be lost for ever. These causes would, nevertheless, have failed in producing the effect, had not the diseased state of mind already made some progress.*

A young lady, born in affluence, was, in consequence, of family misfortunes, reduced to the necessity of supporting herself by needlework. Suddenly, she was seized by the idea that all the misfortunes of her family were owing to her own bad conduct,—she became extremely devout, and, being a Roman Catholic, was continually going to her confessor, whose patience she exhausted by the frequency of her visits. In a little while, she began to fancy that she was more devoted to him than to her Maker, and this, again, became a new source of affliction to her. From being of a cheerful, open disposition, she became silent and reserved; her sleep was disturbed, and she awoke in great frights. Notwithstanding her situation, she continued at her occupation for several months, without exciting the notice of those about her, farther than to lead them to say that her disposition was not what it had been,—a change which was ascribed to her period of life. They were at length, however, under the necessity of placing her under medical care; by means of which, a recovery was effected in about half-a-year.

Another young woman laboured under these inci-

* An unwonted propensity to indulge in intoxicating drinks, is often the earliest sign of disordered mental health.

pient symptoms for nearly twelve months, before insanity was unequivocally declared, during the whole of which period, its presence was unsuspected by her relatives. They remarked, however, that she had become more religious than she had previously been,—that she cried without apparent reason, and forsook her usual walks and amusements,—that she complained of head-ache, and lost her sleep,—that the menstrual discharge ceased, and that she became thinner. In this state, she continued at her occupations for some months; until, her disorder becoming evident, she was put under proper care and treatment, and was finally restored to reason.

This incipient stage of madness is thus described by the late Dr. Monro, in his reply to Dr. Battie, as occurring in a person in the upper class of society:—"The first symptoms are high spirits; these excite a man to take more wine than usual,—from being very abstemious, reserved, and modest, he becomes quite the reverse,—will drink freely, talks loudly and obscenely,—will swear, sit up late, sleep little, rise suddenly from bed, go out a-hunting, return again immediately, set all his servants to work, employ many more than necessary,—in short, all he says or does, betrays violent agitation of mind, which he cannot restrain, and yet, in the midst of all this hurry, he will not misplace a word, nor give reason to think that he imagines things to exist, that really do not, or that they appear to him different from what they do to other people. They who see

him but seldom, admire his vivacity, are pleased with his sallies of wit, and the sagacity of his remarks: even his own family are with difficulty persuaded to take proper care of him, until it becomes absolutely necessary, from the ruin of his health and fortune becoming apparent."

The inclinations and affections are disturbed; unfounded suspicions and aversion to friends, with love of solitude, takes place; and sometimes, for a short interval, the mind appears to be in a state of abstraction, or reverie. This state of reverie (which, in health, produces but a slight and transient effect), seizes the mind so powerfully, as to make the individual shun the society of his best friends, and feel distaste for everything he formerly liked.

As before observed, the patient, not unfrequently, appears to be aware of the unusual state of his mental condition; and carefully endeavours to conceal it from those around him. Many of those, also, who have suffered from a former attack, are quite aware of the approach of another, and will foretel that they are about to have a relapse, because they experience similar feelings, and are sensible of similar intrusive ideas to those which they felt before the former attack; and will even express a wish to return to the asylum, in which they have formerly been confined. The patient's cheerfulness and good humour, give place to listlessness and reverie, and under pretext of study, or of being tired, he will avoid the society of those who formerly were most dear to him. External

circumstances cease to interest him, — accustomed business and labour are neglected, and a change in the affections takes place, so that a woman who may formerly have regarded her husband and her children with affection, will now look upon them with indifference, if not aversion; while another, previously lukewarm in religious matters, will be continually at prayers. Inquiries made by the friends or relatives, respecting these changes, are seldom satisfactorily answered, and the refusal of any explanation being found fault with, serves but to increase the state of irritation already existing.

In this incipient stage of insanity, the disorder is not confined solely to the intellectual faculties, disturbance is also felt in the sleep, which is interrupted by uneasy dreams, and sudden startings; there is pain or heat in the head, with general inquietude, and apprehension. Uneasiness in the stomach, loss of appetite, indigestion, &c., likewise prevail; and in females, the menstrual discharge becomes irregular, or is altogether suppressed. Exanthemata, Rheumatism, Gout, symptoms of Phthisis, and of other diseases, have in some cases disappeared. And, (what is worthy of remark), bad habits have been left off—that of wetting the bed, for instance, I have known to be arrested upon the occurrence of the insane state.

We have hitherto been supposing the sufferer in this incipient stage, to retain sufficient self-control to enable him to continue at his usual occupations, to conceal his true condition, and to maintain his ordi-

nary relations with society. We shall now consider the actual invasion of the disease,—when the security of others, as well as his own preservation, render it expedient to deprive him of his freedom, and of the enjoyment of his civil and political rights.

From the preceding observations, we may infer that the actual invasion of the disease, is frequently nothing more than an increase of the previously existing aberration. This, however, is not always the case, as it sometimes bursts forth at once, with the most frantic fury. Mania, more particularly, making its attack very abruptly; commencing with indescribable sensations in the head, or elsewhere, which cause the individual to utter loud shrieks, and to run up and down the room muttering to himself.*

An instance of this sudden outbursting of the disease came under my observation many years ago, whilst travelling by the mail coach from Edinburgh to London. A gentleman, who had previously exhibited no symptoms of derangement, after having been about thirty hours in the coach, suddenly complained of severe pain in the stomach, and almost immediately afterwards became completely maniacal, and behaved so outrageously, that we had considerable difficulty in getting him conveyed to Ferrybridge, the next stage, where we were under the necessity of leaving him.

But, generally speaking, those who are suffering

* Insanity with depression, is commonly slow in its development, and insidiously glides from nervous apprehension and low spirits, into despondency, despair, and illusion.

under incipient insanity, and who have hitherto manifested no symptoms of the disorder, allow some "mad-like" words to escape them; or under the excitement of any unusual event, commit some act indicative of the existing malady, and then, instead of taking pains to restrain themselves, or to conceal their illusive ideas, they maintain the justness of the former, and the consistency of the latter. Or they may betray a lurking consciousness that all is not right with them, and make frequent and positive assurances that they are not mad, even when nothing has been said to lead them to do this.

At other times, the full development of an attack of insanity, is immediately preceded by some of the following symptoms;—a restless night, with a wild appearance of the eyes in the morning; unusual early rising, either to ramble about, or to arrange and disarrange whatever may come in the way; unusual irritability, and fluctuation of temper and of spirits; a disposition to quarrel with, and suspect those around; unwonted tenacity of opinion; ill-timed generosity, or parsimony and meanness; perhaps luxuriance of ideas, followed by the most foolish expressions; unusual gestures, and movements of the countenance and body; and in a few cases, violent pains, convulsions, or fainting fits, have immediately preceded the invasion of the disease.

CHAPTER X.

THE CONFIRMED STAGE.

Having thus considered the incipient stage of insanity, we will now proceed to the description of the active, or confirmed stage of the disease; and first of Mania, or general insanity.

SECTION I.

MANIA.

The essential character of Mania, is general delirium. The ideas are confused, incoherent, and sometimes morbidly rapid; there is excitement of the muscular power, and disorder of the organs of diges-

tion and nutrition. The excitement and agitation are expressed by disorderly movements, by cries, by threatening words, and by singing.

In Mania, the patient appears to have forgotten the events of his past life, and the objects of his former affections; or, if these do occasionally come into his mind, the impression made by them is transitory. The efforts of volition are vague and unsteady; the emotions of joy and sorrow, with laughter and tears, succeed each other without apparent motive; and there appears to be a total indifference and carelessness, both in regard to the present, and the future. The hallucinations and illusions, also, are transitory, and but little importance is attached to those false perceptions, which are so much dwelt upon in Monomania.

The excitement, which forms a leading feature of Mania, has generally moments of remission, during which, the patient appears to give attention to observations made to him, although he may not reply to them directly.

Maniacs, for the most part, are restless, and appear to have an irresistible impulse to move. This feature (depending upon extreme irritability) is what particularly attracts attention, on entering the room of a patient labouring under what Dr. Willis has termed the *high state* of mental derangement. His motions are very quick and active, and he appears to be incapable of remaining, for a moment, in the same posture, or of confining his attention to one thing; he turns from side to side, puts his hand to his head,

picks his fingers, takes up, and lays down things, or breaks them without ceasing. Sometimes he makes angry efforts to perform actions requiring great strength, and may really exhibit a force, much superior to what he possessed in health. He sometimes, also, seems to regard his powers as supernatural, and even when under restraint, and watched by several attendants, will appear to consider himself superior to them all in strength. Some have escaped from places strongly secured, and have even broken strong bars of iron. We ought, therefore, for our own security, to avoid being alone with such cases, whilst they are in a state of fury; and from neglect of this caution, many persons have received serious injuries, or have even lost their lives. Having no sense of danger, they sometimes commit actions of the most rash description, and it is occasionally a matter of difficulty to restrain them; but in general, when great obstacles to the accomplishment of their attempts, are placed before their eyes, such as a number of persons ready to secure them, they yield without struggling.

These furious paroxysms vary in duration and in frequency: — they may last from a few minutes to several hours, or even days; and sometimes they are so frequently renewed, as to leave but few intervals of comparative calmness. They are generally succeeded by depression of mind and body, by paleness, and sometimes by tremor.

If a patient in this furious state, be placed in seclusion or in restraint, he sometimes has command over

himself, so as to behave with apparent mildness, although the expression of his countenance, and the glistening appearance of his eyes, indicate the disorder of his mind.

In Mania, neither the causes, nor the objects of these furious paroxysms are fixed, affording another mark of distinction between Mania and Monomania: —for in the latter, these fits are usually excited by the same cause, producing the same train of ideas. Idiots, and patients in a state of complete Dementia, are not susceptible of what is strictly called a furious paroxysm, although, they may now and then, exhibit symptoms of excitement and impatience, with an inclination to commit mischief.

We have much more difficulty in obtaining a knowledge of the state of the mind, in Mania than in Monomania. The information we do possess on the subject, has been in a great degree, received from those who have recovered from an attack, for during the paroxysm, the violently agitated state of the patient, prevents the physician from obtaining much information. By carefully examining the behaviour of the monomaniac, however, we are enabled with tolerable accuracy, to ascertain the nature of his case, and determine upon the most probable means of conducting his treatment with advantage.

The monomaniac exhibits a fixed and consistent character, whilst that of the maniac is ever varying: —his exuberant ideas are in the utmost confusion, and succeed each other with morbid rapidity. Al-

though it has been remarked by Dr. Esquirol, that this state of exuberance, and want of order, in the ideas of the maniac, is not so far removed from what actually takes place in the ordinary state of men's minds as might at first be imagined. "For" says he "if any of us could get a person to write down every thought that passed through our mind, during a number of hours,—all these ideas exhibited on paper, would present a picture of the utmost confusion; many of them would have no relation whatever with one another; and it is in a similar manner that they manifest themselves in Mania, all the difference between the maniac and ourselves, being that he publishes all his thoughts, however absurd they may be, while we retain or give out, only what we please."

Maniacs act immediately on the impression being made, without reflection,—hence everything that they do, is done hurriedly, and with violence. For instance, when a maniac meets with an obstacle, he does not endeavour to remove it, but attempts to destroy, break, or leap over it, without hesitation or reflection. Thus, instances have been known, in which, rather than take time to open the door of a room, the patient has jumped out of the window. A case of this nature occurred in a young man, seized with Mania, who was on his way to an asylum, and whilst on the road, was taken for a short time to an inn; while there, he conceived that he was in a robber's den, and, although watched, he contrived to set fire to the house, in order that he

might make his escape in the confusion,—this expedient being the first that occurred to him.

Maniacs have sometimes been supposed to lose all consciousness of their existence. This has been inferred from the complete inattention which many of them exhibit to their own safety and comfort. Upon being restored to reason, however, many of them can give an account of all that has passed during their malady, and of all that has been done for them,—proving, that, although they might be unconscious of the existence of their disease, they had not lost the consciousness of their personal identity.

The following remark by Esquirol, is not only curious in itself, but may, if attended to, be of importance in the treatment of some cases of insanity. He says, "this recollection of the events in a previous attack, does not take place until the eve of another; and that then, the person will begin to talk of all that passed during the former paroxysm, although it may have occurred months, or even years, previously." Under such circumstances, therefore, the renewal of the disease is to be apprehended; and by paying attention to the observation, we may be able to moderate its violence, or possibly prevent or arrest the threatened attack.

After Mania has taken place, and has subsisted for a short time, there is frequently a diminution of symptoms; and we find the incoherence of ideas and discourse less than at first, when the wanderings of the mind were so rapid, that it was impossible to trace

any association connecting the ideas, or to confine the attention for a sufficient time to obtain even the shortest replies. As the corporeal excitement subsides, the ideas exhibit more connexion; and occur in more coherent trains.

In Mania, susceptibility to external impressions is frequently much increased; sometimes however, as has been before observed, the sensibility appears to be blunted, or to be so concentrated on internal sensations, that external impressions (such as those produced by cold, by blisters, by pinching, or even by pins thrust into the flesh) do not appear to be felt. This state of apparent insensibility is not, however, common. Emaciation, to a very considerable degree, takes place; and it is observed, that those patients who retain their flesh, and plump appearance, have less probability of recovery, than those who lose it,—indeed, it may be said, that the mental disorder is not often subdued, until emaciation is very considerable. Wakefulness, as was formerly noticed, and uneasy dreams, are common, and nightmare sometimes occurs; giving rise to increased excitement, or fury.

With regard to the other corporeal symptoms of Mania, it may be observed, that individuals so affected, are, in general, uncleanly in their habits; some of them will void their excrement wherever they may be,—and others, again, will smear the walls of their room with it, or even anoint their faces and persons with it; they sometimes, also, appear to have lost the power of retaining the saliva and urine. A

preternatural secretion of viscid mucus, from the mouth and throat, sometimes occurs; sometimes, also, the nose is very dry. The appetite, in some cases, is voracious, and the food is swallowed without mastication; in others, there is an aversion of food—this, however, is not so frequently noticed.

Extreme reluctance to adopt the recumbent posture, is not uncommonly to be seen. Maniacs also, occasionally, though rarely, attempt self-destruction; the cases in which this tendency occurs, being most frequently those in which the disorder has recently burst forth, or in which, a febrile state exists, in conjunction with the insanity.

The course of Mania is, generally speaking, more rapid than Monomania; more especially than that variety in which depression prevails: and a cure is frequently effected in a few months, or even shorter time.

It has no particular termination that can be regarded as critical; and, uncombined, it seldom terminates in death, except by exhaustion. Those who die in a state of Mania, having for the most part diseases of organs, *unconnected* with the cerebral disorder.

When there is a strong hereditary tendency to Mania, the disease has sometimes appeared in delirium without febrile symptoms, with loss of consciousness and of volition, or decision, to such a degree, that if food be put into the patient's mouth, he will let it lie there, without making any attempt

either to swallow it, or to reject it. Patients of this description, generally die soon, exhibiting on dissection morbid appearances in the gastric viscera, as well as in the brain. From the rapid progress of extreme debility, we are deterred from taking away much blood, which, under other circumstances, might prove beneficial.

Pinel has admitted another form of mental derangement, independent of, and unconnected with, any of the intellectual faculties, to which, he has given the name of "*Mania without delirium.*" The prominent character of this variety, being " irresistible passion" or fury, which impels the sufferer to commit actions contrary to his will, although he still retains his consciousness. Pinel says that this state may be continued or intermittent, and has defined it to consists in "no sensible change in the functions of the understanding, but perversion of the active faculties, marked by abstract or sanguinary fury, with a blind propensity to acts of violence."

It is certain that we do occasionally meet with cases, in which the patient is unable to restrain himself from the commission of certain acts: in the greater proportion of such cases, however, delusions sooner or later make their appearance, and so clear up any doubts which may have been entertained, as to the nature of the disorder.

SECTION II.

MONOMANIA.

In Monomania, or partial insanity, we find a small number of predominant and exclusive ideas, upon which, the delirium manifests itself, whilst the judgment is often sufficiently sound upon the generality of subjects.

The gradation, from general to partial insanity, is almost imperceptible, for in many cases, the disorder is not confined to one leading idea, but extends to several, and is only a little less general than in Mania. This *partial* insanity is, without doubt, the most frequent genus, as compared either with complete Mania or Monomania. It is in most instances a primary affection, but is sometimes the sequel of general insanity. Occasionally the unreasonable desires and ideas are very limited, and appear so natural that we might be deceived by them, if not assured of their being delusions. Patients labouring under Monomania

may continue at their occupation, answer questions with propriety, and appear tranquil,—the existence of insanity being made manifest only, when the subject, on which their minds are deluded, is touched upon.

The different species of Monomania may alternate with each other, or with Mania; and, when uncured, the disorder generally passes into Dementia.

In some cases, delusions, in addition to those which characterize the variety, occur—still leaving the original type discernable. Monomania may likewise assume an intermittent form, in which the intervals may be regular or irregular.

Broussais, in his treatise upon irritation and insanity, proposed to divide Monomania into two species, including several varieties,—namely, Instinctive and Intellectual Monomania. The former founded on perversion of instinctive and physical wants, with or without delirium. Of these, he proposes the following varieties:—

1st: Suicide.	Perversion of the instinct of Self-preservation.
2nd: Agitation, & Immobility.	Perversion of the instinct of muscular exercise and repose.
3rd: Longing for friends, and aversion of mankind, cruelty, &c.	Perversion of the instinct of association with our fellow-creatures.

4th: Voracious & unnatural appetites, eating excrements, &c.	Perversion of the instinct of nutrition.
5th: Erotomania, Nymphomania, Priapism.	Perversion of the instinct of generation.

The latter, Intellectual Monomania, founded on the perversion of moral wants; and on the predominance of one idea, or of a series of acquired ideas.

1st: Monomania, with pride.	Founded on the satisfaction of self-love.
2nd: Monomania, with ideas of melancholy, combined with religion and demonomania.	Founded on dissatisfaction with self.
3rd: Cheerful Monomania, — without pride or vanity.	With ideas of riches, pleasures, power, &c., possessed by the individual.
4th: Melancholy Monomania, Lypemania.	Without self-humiliation.
5th: Complex.	Founded upon a series of ideas, giving rise successively to opposite sensations.

6th: Monomania, in which the patient thinks himself a dog, or a cat; and affects their cries; or conceives himself a bottle, &c. } Without predominance of agreeable or painful emotion.

The species of partial insanity, which I think may be readily distinguished, with practical advantage, as respects the moral management, are—

1st: Monomania, with Elated Feelings,—as Pride, Vanity, &c.

2nd: Monomania, with Religious Feelings.

3rd: Monomania, with Terror.

4th: Monomania, with Love.

5th: Monomania, with Hypochondriacal and Hysterical Feelings and Sensations.

6th: Monomania, with Melancholy and Depression.

These species, it is important to bear in mind, may, as I have already observed, be more or less combined with each other.

1st variety.

monomania, with elated feelings.

Pride. Vanity. Wealth.

The progress of this variety, may be described in

the following manner, being that of one of its most common forms. By the action of some causes, moral or physical, upon a person having a predisposition to mental disease, either from hereditary tendency, from temperament, time of life, or occupation, he is thrown into a state of mental excitement; some powerful emotion or passion controls him, although, at the same time, his intellect may appear as sound as usual; or may even be exerted with more than usual quickness. This excitement, however, soon leads to fixed ideas of an absurd nature, which, in this variety, may have allusion to dignities and honours, with which the patient fancies himself invested,—in some cases, exceeding all probability; as when he conceives himself to be a prince, or a king, or even the Almighty;—in others, magnifying the actual situation he may hold, into one of great importance and honour.

In many instances the patient is very loquacious, and easily excited, and is very tenacious of his own importance. The ideas of grandeur, are accompanied by a correspondingly proud and lofty demeanour; and, in order to maintain the position he has assumed, his relations are looked down upon, as beneath him, and he talks to them with pride and disdain. If he be possessed of property, it is likely that he will be very lavish in his gifts, or if he have nothing to bestow, his liberality will display itself in the splendour and magnificence of his promises.

An insane gentleman of this description, took a large sum of money of which he had got possession

unknown to his relations, (between £2000 and £3000) and gave the whole of it to a poor person, observing, on his return, that he had derived much satisfaction from having done so good an action.

The imaginary wealth, that patients of this class fancy themselves possessed of, frequently induces them to neglect their occupation, and their affairs, as well as excites in them a desire to buy everything they see. This disposition to neglect business, and squander their means, being sometimes, the first thing that leads their friends to suspect the existence of insanity.

Although the upper classes are by no means exempted from this variety of partial insanity, yet it has been observed, that delusive ideas of greatness, honors, or wealth, are apt to occupy the minds of those, who are the furthest removed from the actual possession of them.

In a considerable proportion of those cases of partial insanity, in which erroneous ideas of wealth and grandeur predominate, the occurrence of loss of memory, together with loss of the power of motion, (first showing itself in difficulty of speech) takes place, forming that much dreaded complication termed, "general paralysis of the insane." The ideas of wealth and grandeur, are sometimes abandoned, as the paralytic state, with symptoms of increasing Dementia, gain ground.

This variety of insanity, is found to be more common in this country than was formerly supposed; and

prevails much more in males than in females. Into the Surrey Lunatic Asylum, there have been admitted, since its opening in 1841, 452 males, and 391 females; of the former, there died of general paralysis, 69; of the latter, 11. There remained in the house, on the 31st of December, 1847, 9 males, and 4 females, labouring under this complication; making a total of 93 cases out of 843.

Such cases are not admitted into Bethlehem Hospital, or are immediately discharged therefrom as incurable, when its existence is ascertained. They generally terminate fatally, and their study is well worthy of attentive consideration, as the paralytic character is very liable to be overlooked, by practitioners not conversant with insanity.

When pride and vanity are combined with religious ideas, in an insane person, the term "Theomania" has been employed, to distinguish the variety thence originating. In this variety, the patient may conceive that he holds converse with angels, or spirits, or that the course of events and of seasons, are under his control.

In Bethlehem Hospital there is a patient who assumes the title of the "Warrior God of Heaven and of Earth," and who believes himself possessed of unlimited power over the lives of mankind. Another patient, believed himself called upon to go forth as a preacher, to convert mankind, a delusion which led him to commit many extravagant actions, and to expose himself to situations of imminent danger. Fully

impressed with the idea, that it was impossible for him to be drowned, and desirous of giving a convincing proof of his divine mission, he jumped from a bridge of considerable height into a river; luckily for him he escaped being drowned, by the prompt assistance afforded. This escape emboldened him to give other proofs of his divine mission, equally rash. On one occasion a large waggon passing by, he threw himself down on the ground, in the direction of the wheels, and must have been crushed to death, had he not been drawn from underneath the waggon just as the wheels were approaching him.

In Monomania without depression, the physiognomy is open and animated, and the eyes are bright and glistening; the corporeal functions are performed with activity, and the patients themselves are apt to be noisy, and to boast and bluster. In several respects, there is a similarity to Mania, particularly in the symptoms of wakefulness, agitation, and fits of increased excitement.

Those temperaments termed the sanguine and nervous, predispose to this variety.

2ND VARIETY.

MONOMANIA, WITH RELIGIOUS FEELINGS.

Religious Monomania, has often prevailed to a

great degree; it is of frequent occurrence, and has been observed in almost every age, country, and sect. Those who have laboured under it, have been described under the names of sorcerers, of demoniacs, of "possessed of devils," and so forth.

The more the minds of men have been excited by novel doctrines in religion, the more frequently have they been overturned. In the time of Luther,* the increase of this form of disorder, was very remarkable; and the same has been observed, though on a smaller scale, amongst the Mormonites, Irvingites, and the followers of Joanna Southcote, in the present day.

Remorse of conscience, and terror, excited by violent and bigoted preachers, favoured by a predisposing condition of the brain, brought on by depressing passions, by intemperance, or by critical periods in females, give a tendency to this variety.

Many of those afflicted with religious insanity, are under the dominion of fear or terror; they conceive themselves to be damned, or that they

* Luther himself though so able a man, was mad on some points. He fancied the devil was in him,—*as did also the Roman Catholics*,—and that he heard him speak. In *Hudibras* (part 2, canto 3) there is the following couplet—

"Did not the devil appear to Martin
Luther, in Germany for certain?"

and in a note to this passage, it is stated that Luther, in his works, speaks of the devil appearing to him frequently, and how he used to drive him away, by scoffing and jeering at him. The Roman Catholic writers of the time, not only believed that the devil was in him, but some of them affirm that he was begotten by an incubus, (a kind of young devil), and that at length, when he died, the devil strangled him.

deserve the pains and tortures of hell. Some, have even thought themselves to be the devil; or possessed of him. In a remarkable case of this kind,—that of a female, who conceived herself to be the devil; the sensibility to external impressions was so much blunted, that she allowed pins to be thrust into her flesh, without evincing the least signs of pain. She was also in the habit of beating herself. On examination after death, it was found that she had suffered under chronic inflammation of the abdominal viscera.

I have met with several cases of this sort. One of them, a clergyman, fancied that the devil had got into his head, and made many attempts to drive him out of it. On one occasion, in endeavouring to do so, he destroyed both his eyes, and raised a tumor upon his forehead as large as a child's head.

"Demonomaniacs," as patients of this description are called, are, in general, sallow and emaciated; and the expression of their countenance is peculiar.

Religious, or superstitious insanity, it is to be observed, has, on various occasions, led to the commission of homicide. Instances have occurred, in which a madman of this description has supposed that he has heard a voice from heaven, calling on him to convert others, by baptizing them in blood; or, to save them from hell, by putting them to death. A case exactly in point, occurred in Paris, of a man who killed his wife and children, under the conviction that he had been ordered by a voice from heaven to baptize them in their own blood. He was found to be in-

sane, and committed to the Bicêtre; where, on Christmas eve, having heard the same voice telling him that the time was now come, for another bloody baptism, he contrived to kill one of his fellow patients. Another case is related of a man, who said he heard a voice from heaven calling on him to imitate the sacrifice of Abraham, in consequence of which, he actually put his son to death. A third, after hearing an impassioned sermon, conceived that he must inevitably be condemned to eternal punishment, and that the only way to save his children from the same dreadful fate, would be to kill them immediately, which he did on his return.

3RD VARIETY.

MONOMANIA, WITH FEAR AND TERROR.

Fear and terror, sometimes give rise to insanity, both general and partial, and likewise form the leading character of a variety, which has been denominated "Pantophobia." The delusions here, are in general, of a description analogous to those ideas which have been familiar to the individual, previously to the attack of the disease. For instance, a devout man will be in dread of a future state, and of the sufferings he conceives he is doomed to endure,—if he live near the sea, it is probable that storms will be the subject of his delusions; and in some cases the inter-

ference of spies or of thieves has formed the prominent feature in this disease.

During the French revolution, an emigrant was taken by spies, and thrown into prison; there he became insane, and remained in continual terror of being pursued by spies. A female being alone in her bed room, was greatly terrified by the entrance of a housebreaker; she afterwards became insane, and fancied she saw and heard robbers, in every person who approached her. In these two cases, the terror both caused the disease, and formed its most characteristic feature.

In those who labour under this form of insanity, the terror is sometimes confined to one object, as a prison, hell, robbers, spies, the police, or demons; at other times it embraces several objects, and there are some instances, in which, every thing excites fear. When this is the case, the situation of the patient, is truly deplorable.

As an instance of this, I may mention the case of a lady, who from fear of being arrested for debt, was seized with Pantophobia. The noise she made in walking, or in moving in bed, terrified her, as did the very rustling of the leaves on the trees; in the day time, if the sky became overcast, she imagined that the world was about to end, so that every object or occurrence, became a source of terror and dismay. At first also, she refused food from a fear that it had been poisoned, but after a time, by leaving it in her room she was at length induced to take it.

The insane in this variety, are perhaps, more subject to illusions and hallucinations, than any others. They are continually hearing cries or threats, or seeing objects which terrify them; and they are disposed to interpret every thing to their own disadvantage; ascribing to themselves imaginary crimes; or if they have in their youth committed indiscretions, they retain the remembrance of them, and are ever ready to exaggerate them, and to conceive that no punishment can be too severe for them. An example of this, occurred in a handsome and accomplished young lady, in easy circumstances, married to an indulgent husband, who became insane, and was seized with a fear of every object; she was in continual dread of being taken away and put to death, and was for ever crying, "pardon me—pardon me!—spare me one day more!" It was with great difficulty that she could be induced to take food.

Monomania, with fear, is one of the varieties that leads to the commission of suicide, it also brings on great debility and emaciation, so that death sometimes ensues, without any other cause being apparent.

4TH VARIETY.

MONOMANIA, WITH LOVE.

To that form of Monomania, in which ideas of love predominate, the term "Erotomania," has been ap-

plied. We are to distinguish this from what may be termed "love melancholy," in which there is no delirium; for the former is characterised by delusions, in consequence of which, the sufferer says and does things, from which the other can restrain himself.

Satyriasis and Nymphomania (excessive lust in either sex) have likewise been confounded with Erotomania; the difference between them being, that the two former diseases appear to arise, partly at least, from irritation of the genital organs, which by sympathy affects the brain, and they are not confined to one object of desire. Erotomania, on the other hand, is a primary affection of the intellectual organs. In Satyriasis and Nymphomania the language of the patient is of an immodest and obscene nature, and the actions are lascivious. In Erotomania, on the contrary, improper language is not employed; the patient's love is of the sentimental kind, he is wholly occupied by the object of his adoration, whom, if he approach, it is with respect.

The tenacity with which the mind retains lascivious ideas, under circumstances which we would expect would wholly extinguish them, is surprising. I allude to the stage of collapse, in Asiatic cholera. During the first attack of this formidable disease, in the Lunatic Asylum at Hanwell, in September and October, 1832, when only females were the subjects of it, several patients labouring under this variety of insanity, exhibited lasciviousness in their words and actions in the highest degree, long

after the pulse at the wrist had ceased to be perceptible, and the skin and tongue had become quite cold; indeed, until a very short time before they expired.

The fixed and permanent delusions attending Erotomania, sometimes prompt those labouring under it to destroy themselves or others; for, although in general tranquil and respectful, the patient sometimes becomes irritable, passionate, and jealous. As in other cases of insanity, the general character of the patient, and particularly the affection towards relatives, frequently undergoes a change. He (or she, for the sufferer is generally a female), becomes thin, restless, melancholy, and silent; and some will be continually writing the name of the beloved object on paper, on the walls of the room, or on the ground.

There are examples, in which beautiful statues, and other inanimate objects, have become the objects of Erotomania. Such instances are mentioned by Plutarch, and by M. Ferrand, in his work called *Mal-d'Amour*. It principally occurs in youth, but sometimes also in women, about the cessation of the menstrual period.

I mentioned that a disposition to commit suicide, and in some cases homicide, occurs,—the following is an instance of the former. A merchant's clerk fell in love with his master's daughter, but concealed his passion, until he was informed by a companion, that he had asked her hand in marriage. He became low spirited; but assigned no reason for this change.

Some time afterwards, he met the young lady at a ball, and asked her to dance; after he had finished dancing, he became violently agitated, repeated her name continually for the space of an hour, expressing his love for her. He soon after became quite insane; and attempted to destroy himself. During his subsequent confinement, he was continually writing the lady's name on the floor and walls of the room, and on the furniture; he was extremely restless, and scarcely closed his eyes for many nights together. After some months duration, his disorder began to abate, and he ultimately recovered.

This variety sometimes manifests itself in furious and dangerous jealousy; which leads to the commission of homicide. This has been described by the poet Lee, who is said to have been himself deranged:—

"To my charmed ears, no more of women tell;
Name not a woman, and I shall be well.
Like a poor lunatic, that makes his moan,
And for a while beguiles his lookers-on:
He reasons well,—his eyes their wildness lose,
And vows his keepers his wrong'd sense abuse;
But, if you hit the cause that hurts his brain,
Then his teeth gnash, he foams, he shakes his chain,—
His eyeballs roll, and he is mad again."

Cæsar Borgia.

The following is an instance of homicide, the fatal result of Erotomania. A gentleman fell in love with, and married, a young lady of eighteen—much younger than himself. He was naturally of a jealous disposition, and now became much more so; he would not

allow any of his clerks to live in the house, fearing they should make love to his wife. From some cause, he became insane; and was placed in an asylum, where he remained six months. At the end of that period, he was considered to be nearly cured; and was permitted to go about, under the care of an attendant. Still, there remained some suspicious circumstances in his conduct; he would never converse about his former position, nor about the cause of his insanity. His wife, however, was allowed to visit him; but on her arrival, he disclaimed all knowledge of her: he examined her from head to foot, made her show her tongue, looked attentively into her mouth, and made her take off part of her dress, but after all this examination, he exclaimed, "I know you not." The gentleman under whose care he was, begged the wife to leave him some time longer in the asylum; the moment he had said this, the husband sprang upon his wife's neck, and lavished caresses upon her. Two days passed off pretty well, but upon the third, he began to show symptoms of jealousy; but, notwithstanding this, and the prudent advice of the physician, his wife persisted in taking him from the asylum. On his road home, he had several fits of jealous irritation; because his wife was occasionally spoken to by men. On the day after his return, he unfortunately possessed himself of a razor; his brother-in-law, a lad of about twelve years old, came into the room soon after, when he immediately seized him by the hair; after a pause of a few minutes, he

gave him a kick, and sent him out of the room, saying, "you are not worth the while."

Next day, he begged his wife to let him see the wine cellar, she went with him, but they had scarcely entered it, when he cut her throat from ear to ear. Her sister after a little while, becoming uneasy at their absence, went into the cellar also, and experienced the same fate. A female servant, feeling the same anxiety, must likewise have fallen a victim to his insane rage, had she not run away from him with the utmost speed. After being confined in an asylum for some length of time, he recovered his reason, but was quite unconscious of having killed either his wife or her sister.

5TH VARIETY.

HYPOCHONDRIACAL MONOMANIA.

The next variety of partial insanity, which I shall bring before you, has been termed "Hypochondriacal Monomania,"—a very frequent disease, in which the patient's mind is harrassed by distressing corporeal feelings; with regard to which, he labours under delusions. In the disorder termed simply, Hypochondriasis, the patient retains all his intellectual powers,

and has no errors of perception; he has only increased sensibility, with apprehension, which leads him to exaggerate the uneasy feelings which he experiences. When this state of things passes into insanity, the senses are liable to illusions, especially of hearing and feeling,—more particularly of visceral sensation.

Some ascribe these feelings to the presence of worms, frogs, or other animals, in the abdomen. Ambrose Paré relates the case of a man, who was convinced that he heard frogs croaking in his belly, and informs us that he cured him, by giving him a strong purgative, and by placing frogs in the night-stool.

I once saw a female, under the care of M. Esquirol, who conceived that she was full of worms, and, in fact some worms were expelled by vermifuge purgatives, and the patient soon afterwards got well. Five years afterwards, she had a return of her disorder, and the same remedy was given, but no worms appeared. She remained insane, and fancied that the worms had got into her head. The following experiment was then tried: a small incision was made on her forehead and pieces of worms procured for the purpose, were shown to her, as if extracted from the wound. The impression thus produced, entirely removed her delusions for a time, but unluckily some of those about her, undeceived her, and the consequence was that she relapsed, and continued insane. Notwithstanding the success of the experiment

in this instance, however, I very much question whether some other delusions would not have occurred, even though she had not been undeceived with respect to the worms.

The Hypochondriacally insane, are sometimes also, under a delusion, respecting their form and organization. The ancients were acquainted with this variety, to which they gave the name of "Zoanthropia."

Galen mentions a person who conceived that he was changed into a cock; and numerous other instances might be cited.

Sometimes, though rarely, they have fancied their sex to have been changed. A lady (a patient of mine) conceived herself to have been so metamorphosed. She became quite enraged when called "madam," but was easily quieted by being addressed as a man.

Some have also thought themselves to be dead; and, under this idea, have refused to take food. The cure of a case of this kind, is said to have been effected in the following manner,—the patient was placed in an apartment hung with black curtains, and other signs of mourning, in which were seated at table, two or three persons, who, in their conversation with each other, pretended to have the same idea of being dead. These persons, having a solemn appearance and demeanour, had food placed before them, of which they began to eat. The patient finding that other dead persons did not refuse food, began to do as they did, and was soon cured of his delusion.

Some have conceived that they have no head,

Cælius Aurelianus mentions a case of this sort, others, that they are minus their legs; or that their legs are made of glass, or of butter, and they have in consequence, most sedulously avoided going near the fire, for fear of melting themselves. Not long ago, I had a patient in Bethlehem Hospital, who fancied that he had no bottom, and that it was impossible for him to sit down on that account.

A modification of this variety of insanity exists in connexion with hysteria. In this case, the patient sometimes complains of pains in the abdomen, or of pain and heat in the uterus and its appendages. In consequence of such sensations, some patients, without any foundation, are convinced that men have been with them during the night. The following case forms a very good illustration of this form of mental disease. A young lady accompanied her mother to hear a lecture on botany, and went home convinced, that as some flowers are impregnated by others at a distance, and without contact, so had she been impregnated by the lecturer, and that she was actually with child by him. In consequence of this delusion, she employed herself in preparing baby-linen for her expected accouchement. At the end of nine months, she fancied she felt the pains of labour, and made efforts to bring forth her looked for offspring. From this time, she lost her health, and never recovered.

Another, conceiving herself pregnant with a multitude of children, was in the habit of lifting up her

gown, and affirming that she was about to be delivered. This female was of a very costive habit, and was happily cured by a course of purgative medicines. I was once in the habit of seeing a lady who believed that she was with child by George IV. for three years, and I lately saw one, who assured me that she had continued pregnant for twenty-one years.

In some cases of partial insanity, the ideas, although of a fixed and circumscribed description, vary much from time to time,—for instance, a madman may, for one week or so, think himself damned; and the next, may believe himself to be in a state of perfect bliss.

The *kind* of insanity, also, is frequently modified by the prevailing temperament of the patient; upon which it appears more frequently to depend, than upon the immediately exciting cause. This is particularly the case in the variety we are next to consider.

6TH VARIETY.

MONOMANIA, WITH DEPRESSION.

The subjects of this variety are for the most part of a spare habit, and of a pale, sallow complexion; what is termed the bilious, or melancholic temperament,

predisposes to it. The physiognomy of patients labouring under it, is fixed; the muscles of the face being in a state of contraction, the pupils are moved with difficulty; and the regard is frequently expressive of timidity and suspicion. The whole appearance conveys the idea of sadness and melancholy,—the same cast of countenance is always preserved; and, after an attentive consideration of a few patients of this description, there is but little difficulty in recognising the variety. The skin is sometimes dry and hot; but more frequently, perhaps, it is cold, and clammy: the pulse is small and contracted—rarely full.

Such patients speak little or none, they are averse to moving, and prefer solitude; and some have a habit of biting their nails. Many of them are averse to food,—some from dread of poison, others from being suspicious that the food is of bad quality; whilst very frequently their motives are not acknowledged. Aversion to eating solid food, being frequently accompanied by considerable thirst, we are able, in some cases, to avail ourselves of this, and convey nourishment dissolved in the fluid form. Time, patience, and even artifice, are sometimes required, before we succeed.

The excretions are unhealthy, and diminished in quantity; the fæces are seldom of a natural appearance; the perspiration is diminished, or is cold and clammy. Patients labouring under this form, sometimes neglect the calls of nature,—being prompted

to do so by absurd motives, by indolence, or by pain occasioned in obeying them.

I had a lady under my care, who never went to stool without experiencing the greatest terror, and continued in this state for many months. Another retained her urine for upwards of two days, at the end of which time, she passed several pints. And a gentleman, subject to flatulence, avoided going to stool, conceiving that the noise he made proceeded from living creatures.

In some, a state of continual fear and suspicion prevails; and any attempt to soothe, or divert them from their melancholy ideas, is met by peevishness, or by fits of angry excitement.

The symptom which distresses friends most, is the tendency to regard them with indifference, or dislike, and to employ language of an obscene or blasphemous nature. This we can only ascribe to the diminished or perverted sensibility of the mental feelings.

Although, on the first attack of partial insanity, as well as on subsequent ones, every attempt made to distract the attention from the objects of the delirium, is unavailing, it is of importance to remark, that a strong and unlooked-for impression, may occasionally excite more reasonable ideas; whilst in proportion as the strength of the impression diminishes, the patient reverts to his former state. We are, therefore, to keep in mind, on visiting a monomaniac, that if our presence makes a strong impression upon him, he

may for a short time, be much less unreasonable than usual, thereby leading us to form a too favorable opinion of his mental condition. We may also remark, that the ideas of a monomaniac, being as it were, concentrated on one subject, a force of reasoning on that subject, may be produced, superior to what, under ordinary circumstances, he appears to possess.

CHAPTER XI.

SUICIDE.

In prosecution of the detail of the principal phenomena, observed in Mental Derangement, I shall make some observations on suicide, the propensity to which, is frequently met with in the form of partial insanity just mentioned, in the last chapter, and occurs occasionally in some of the other varieties, as well as in the incipient stage of insanity.

Suicide cannot be regarded as constituting any peculiar disease; but is rather an act which may result from a variety of different states of the mind; for we find that love of country, dread of slavery, fidelity to an oath, a desire to go more speedily to heaven, or fear of future

punishment, have all led to the same catastrophe. Neither is it peculiar to sex, age, or country; men and women, old and young, rich and poor, the brave and the cowardly, have each and all committed it.

Religion, laws, manners, and customs, have modified the frequency, as well as the motives, which have led to the commission of the crime. Some philosophers, as the Stoics, have recommended it, others have reprobated the practice. But by all the modern systems of legislature, suicide is condemned; although the laws which relate to it, are seldom anywhere rigidly enforced.

In the time of the Roman Emperors, numbers of the principal men who were threatened with proscription, put themselves to death in order to avoid this fate. During the horrors of the French Revolution, the same thing happened,—thus, instances were known of fathers putting an end to their own lives, to avoid the guillotine, and to preserve their property from confiscation.

In the East Indies, many individuals terminate their own existence, in conformity to ancient custom—thus, widows are voluntarily burnt on their deceased husbands' pile. Some of the lowest class of natives, in the province of Berar, vow suicide, in return for boons solicited from their idols; and in fulfilment of this vow, the devotees fling themselves from a lofty precipice, and are dashed to pieces.

At Ghazepoor, suicides are common,—men and women throw themselves into wells, or drink poison, from apparently very slight causes; generally speaking

arising out of a quarrel, and in order that their blood may lie at their adversaries' door. And many scores of pilgrims come every year to Benares, to end their days, and secure to themselves everlasting salvation. They purchase two large "kedgeree pots," between which they tie themselves,—thus equipped, they paddle into the middle of the stream—fill the pots with water, and sink to eternity.

Amongst the Japanese, suicide is a general practice when they have incurred disgrace, as it spares them the ignominy of being punished by others, and confers on a son the right of succeeding to his father's post. All the officers of government are provided with a suit necessary for such an occasion; it consists of a robe and a habit of ceremony, made of hempen cloth, but without any design, or armorial bearings. As soon as the order of the court has been communicated to the culprit, he invites his intimate friends for the appointed day, and regales them. After they have drank together for some time, he takes leave of them, and the order is again read over to him, after which, having addressed a speech to the company, he inclines his head towards a mat, draws his sabre, and cuts himself across the body, penetrating to the bowels. One of his confidential servants, then strikes off his head. Such as wish to display superior courage, inflict a second longitudinal cut, and then a third in their throat. Titsingh, in his history of Japan, says that the sons of people of quality, exercise themselves in their youth for five or six years, with a view that they

may perform the operation, in case of need, with grace and elegance; and he adds that they take as much pains to acquire this accomplishment as the youth amongst us do, to become elegant dancers, or skilful horsemen.

The causes, which most frequently tend to produce an inclination to commit suicide in civilized countries, are certain passions of the mind, in particular, those occasioned by reverse of fortune, and by disappointed hope, by the active feeling of hatred of life, or by the passive feeling of *ennui*, or weariness of life.

The operation of such violent and sudden emotions, as produce the state of mind bordering on delirium, in which suicide is attempted, is in general rapid, and transitory; for if the individual misses his aim, he seldom renews the attempt; and the mind, assisted by the powerful impression produced, regains its self-control.

The same effect has been observed to take place, when the cause impelling to suicide has been arrested in its action, as in the following instances. A lady, when walking out with her child, lost it in a crowd; this threw her into a state bordering on distraction, and she determined to destroy herself; very fortunately, after some time had elapsed, the child was found, and presented to her just in time to alter her purpose. Another lady, labouring under insanity, was seized with a propensity to commit suicide, by drowning herself in a river, on her way to which, she stopped short, and her purpose was given up; upon inquiry, it was found that the menstrual discharge, which had for some time been suppressed, had suddenly re-appeared.

Suicide may also be the result of a sudden impulse, produced by hallucination or illusion in febrile delirium, as in the following instance. A young man, who lodged in a room at the top of the house, in a state of febrile delirium, fancied he heard a voice from heaven calling to him, and that he saw a luminous car at the window waiting to carry him there, he jumped out of bed, and opening the window, leaped into the visionary car, and was killed upon the pavement. Another in a state of delirium, wished to lay hold of a young woman, who, in order to avoid him, ran down a flight of stairs; he, apparently with a view of getting to the bottom before her, and intercepting her, leaped from the top, and was also killed upon the spot.

A woollen-draper, in the city of London, in whom his friends had not previously observed signs of mental disorder, was one day seen to run suddenly upstairs, and fling himself out of the second-floor window. He was taken up in a state of insensibility, and his life despaired of. On his subsequent recovery, however, he stated, that while standing at his shop door, he was terrified by a drove of oxen running down the street, and that one of them, more furious than the rest, had run at him, fixed him on its horns, carried him upstairs, and tossed him out of the window. A drove of oxen had, it appeared, actually passed down the street a short time before this attempt on his life.

Hypochondriasis may sometimes incline patients to

commit suicide; but although it is often a favorite subject of conversation, the greater number are prevented, by their fears, from actually putting an end to their existence. For instance, a lady of this description took up a knife, apparently for the purpose of terminating her existence, and gave herself a slight cut, when her courage failed her, and with it her desire for suicide, as she never afterwards renewed the attempt.

In severe chronic diseases, the distressing sensations and pains endured by the sufferers, have occasionally induced them to commit self-destruction. Esquirol gives the following somewhat singular instance. The father of a young lady of hysterical disposition attempted to violate her person, when she was about fourteen years of age. She was so much shocked in consequence, that she resolved to commit self-destruction; and for this purpose, she collected a considerable quantity of opium, by purchasing small quantities at different places, and swallowed the whole. This did not kill her, but brought on a severe attack of hysteria. After having tried a variety of medicines, she resolved a second time to put an end to her sufferings, and obtained a quantity of tartar emetic, which she swallowed. Again she recovered, but not without having suffered severely from the effects of the poison. About eighteen months afterwards, she made a third attempt to destroy herself, by taking a larger quantity of the same drug; and suffered still more severely in consequence. After undergoing much teazing from some

companions, who were always telling her that marriage would cure her complaints, she suddenly disappeared; and it was supposed that she had drowned herself. Two months after her disappearance, Dr. Esquirol, in passing through a remote part of Paris, in the dusk of the evening, was stopped by a female, in whom he recognised his lost patient: he inquired what she was doing in such a place,—her answer was, that she was trying to cure herself. She had lived for some time in prostitution, became pregnant, and then returned to her friends. She afterwards married, and had some children; and her health was completely restored.

Some insane persons have a propensity to terminate the existence of others, before they destroy themselves. Thus, one person, after killing his brother and his two children, put an end to himself, asserting his conviction that he should accompany them to heaven. A lady, in a fit of jealous insanity, put an end to herself—but not before she had attempted to kill her two daughters; with the view, as she said, of preserving them from a lot so wretched, as she conceived hers to be,—that of being married to an unfaithful husband.

Others again, instead of directly attempting their own destruction, are said to have committed murder, or some other capital offence, in order that they might have time for repentance whilst awaiting the execution of the sentence due to their crime.

Example appears to have a great influence in ex-

citing the suicidal propensity; and it is to be feared that the publicity given by newspapers to cases of this kind, is productive of considerable mischief. Such details are hurtful, by suggesting the means to minds already predisposed.*

Suicide is said to have been endemic, in certain parts of Italy, amongst those suffering under the disease called Pelagra. It has also prevailed epidemically, as when nostalgia has occurred in a vanquished or retreating army.

It has been observed, that the greater number of those who have made attempts upon their lives, are members of families, in which instances of suicide or of insanity have previously occurred. Hence, hereditary destruction, is conspicuous as a cause in both, and shows strongly the close connexion which may exist between them. The strength of this predisposition, is well shown in the following instance. One brother put an end to himself; some months afterwards, another did the same; a year afterwards, a third starved himself; eight years afterwards, a fourth committed suicide; a sister became insane, and several times tried to destroy herself; and, lastly, a sixth member of the family committed suicide.

The ages at which suicide and insanity make their appearance, is nearly the same. It is very rarely met with in old people, although instances do now and

* Every one must be reminded of this imitative propensity in the commission of suicide, each time he sees the present disfigurement of the monument at the top of Fish-street-hill.

then occur. A medical man, for instance, at the age of 82, had an indisposition, from which, he was with difficulty relieved; after his recovery, he said to his daughter, that as he now felt well, he was determined to put an end to himself, as he did not wish to have any more suffering; and in spite of her entreaties and precautions, he actually died at the end of six days, from exhaustion, produced by abstinence from food.

Suicide is also very uncommon in children; although, there have indeed, occurred a few instances of children, of six or eight years old, strongly affected with nostalgia, who are said to have allowed themselves to die for want of food. Some instances, also, are recorded, of young persons committing suicide, by hanging or drowning, on being reproved for some trifling indiscretion.

An ill-directed education, and certain descriptions of reading, have considerable influence in leading to suicide. The military spirit, too, producing a disregard for life, may favor the disposition.

The bilious temperament is the most liable to this propensity; next to this, the nervous temperament is to be regarded as the most obnoxious to its influence.

Suicide appears to be most prevalent in the two extremes of civilization. It is found also to be more common amongst men than women. The immoderate use of wine and spirituous liquors, and especially the habit of self-pollution, lead to it, as well as to insanity.

The insane sometimes use very great perseverance in order to effect their own death; if they have made wounds or fractures, they do all they can to prevent

their healing, by tearing off the bandages, and opening the wounds, &c.

A lady threw herself into a deep river, on two different occasions, with the intention of drowning herself; she was, however, taken out before she effected her purpose. She next attempted to starve herself, but was constrained to take nourishment. Her next attempt was to throw herself from the top of her bed, and also from the top of some chairs which she had piled up. She then swallowed pieces of wood, and very large pieces of meat, in order to choke herself. She also knocked her head against the wall of her room with great violence, so that it was found necessary to place her in a room, in which the walls were padded with mattrasses, in order to prevent any serious injury. Although under personal restraint, and accompanied by three attendants, she one day contrived to secrete a stone in her shoe, whilst walking in the garden. This stone she swallowed at night, and exulted in the idea that she had at last succeeded in effecting her purpose; the stone, however, passed through her, without any ill effect. She continued to lament without ceasing, that she was not permitted to die; and, seeing that all her attempts were frustrated, by being so strictly watched, she conceived the idea, that she might destroy her lungs by continual expectoration. By doing so, she caused her jugular veins to swell to nearly four times their natural size. She still continued to live, when this account was written. One of this lady's family, had also made several fruitless attempts to destroy herself.

Some time ago, I attended a young lady, who had been tempted to purloin a piece of lace from a shop; and, being detected, she was so much affected with shame and remorse, that she determined to destroy herself; for which purpose she got a quantity of arsenic and swallowed it. Having vomited a great portion of it, she appeared likely to recover, but this she was determined not to do; and next day, notwithstanding the severe pain she experienced, she procured another supply and swallowed it. The second dose put an end to her existence; but not until after several days of excruciating agony, and a too late repentance of her rash act.

The following is another instance of a determination to die, almost inconceivable. A gentleman in a state of melancholy, withdrew to a wood, where he dug a trench, and lay in it eighteen days, each day noting in a journal, the state of his feelings. In this journal it is stated, that the first night he suffered much from hunger and thirst,—on the third day, he licked the moisture off the grass,—on the fourth, he suffered much from cold,—and on the fifth, from intolerable thirst and flatulence,—on the sixth night, he left his trench, and went to the pump of an inn, near the wood, and moderated his thirst a little, but did not quench it. He continued in nearly the same state, until the tenth day, when he was no longer able to go to the pump. On the eleventh day, a little rain fell, which served to allay his thirst,—for the first time he saw a man who nodded to him in passing. On the

fifteenth day, his debility was extreme, and he had convulsions. From this time he ceased to write. On the sixteenth day, a countryman found him in his trench, and gave him some broth and yolk of egg to restore him, but without effect,—he died on the eighteenth day.

There is on record another remarkable case of a man, who, conceiving himself to be our Saviour, resolved to crucify himself. After preparing a cross, about which he was occupied for a long time, he drove nails into both his feet, and into his left hand, and then forcibly pressed his right hand against a nail previously driven into the cross, the head of which was filed off, and made sharp. He was found in this painful position, and taken to a hospital, where his wounds were dressed. His religious delusions now appeared to have left him; but, eighteen months afterwards, his propensity to suicide returned, and he effected his death by abstinence.

The strictest watch and surveillance must be kept over those, who have manifested a disposition to destroy themselves; everything that can be converted into a means of destruction, must be removed,—such as all instruments, ligatures, or articles which can be converted into ligatures, as well as all projectile substances.

The following case will show the propriety of every precaution being taken. A physician being called to see a lady, considered to be but slightly insane, accidentally opened a box, which he saw on the

table, containing a single pill, and which he knew had not been prescribed for her: suspecting it to be of a poisonous nature, he took it away, and placed another in its stead, of a similar size and appearance. Next morning, the lady expressed her surprise that she was alive; adding, that her means had disappointed her.

A gentleman was brought to London, for the purpose of being placed in an asylum for the insane; and while his friends went to make the necessary arrangements, he was left in a hotel, attended by two domestics, who were strictly charged not to leave him for a single instant. He requested one of them to fetch a little water, and during his absence asked the other to bring him a chamber-pot out of the next room,—a request which the servant thought he could not refuse. Though thus left alone for the shortest possible time, he contrived effectually to cut his throat.

A lady had manifested a strong propensity to suicide; but, by great attention and suitable occupation, she apparently lost this desire. When her physician visited her, she told him that she had completely given up all thoughts of making away with herself; and then, in an instant, turned round, and before he could prevent her, jumped out of the window.

Many suicides make use of the first means of destruction that comes to hand; some, however, make a selection: and of those who do, it has been noticed, that men usually have recourse to fire-arms, or to

cutting instruments; whilst women generally employ poison, or drown themselves, or else kill themselves by strangulation. Suffocation, by means of charcoal-fumes also, is not uncommon in France.

Suicide has likewise been feigned. I was once sent for, to visit a young man who, with a view of working on the feelings of his parents, and inducing them to consent to his marriage with a person of whom they disapproved, made several slight cuts across his throat and temples, and pretended to be dying. By this piece of deceit, he gained his purpose.

From all that has been said on the subject, we cannot but come to the conclusion, that suicide, under ordinary circumstances, is an act resulting from a diseased state; for, if this be not evident at the time the act is attempted, we generally find, in those cases where the individual's purpose has been arrested, that it was the first consequence of incipient insanity.

A question has often been raised, as to whether marks of disgrace ought to be inflicted on the bodies of suicides; with a view to its prevention.

So far as regards the individual himself, punishment, of course, is out of the question: but I think it probable that, under certain circumstances, many might be deterred from it, were they made to fear that their memory and their families would be disgraced. A law passed in Saxony, to the effect that the bodies of all suicides

were to be dissected in the medical schools, is said to have been attended by a beneficial effect in reducing the number of these cases. The senate of Miletus, also, at a time when an epidemic rage for suicide, appears to have existed amongst the female portion of the community, passed a decree for its prevention, directing that the body of the first woman, who should put an end to herself, should be exposed naked in the market-place. It may also be mentioned, that the negroes in the West Indies, who had been torn from their homes, frequently put themselves to death, in the belief that they should thus be restored to their native country. A number of precautions were taken, to prevent these self-murders, which were at one time very frequent, but without effect; until it was resolved that the bodies of such as had put an end to themselves, should be left partly unburied, and that others should have their limbs cut off, to show their companions that they did not return to Africa. By these means an end was soon put to the practice.

CHAPTER XII.

THE TERMINATION OF THE ACTIVE STAGE.

SECTION I.

CONVALESCENCE.

The next subject to be considered, is the decline of the insane state, and the appearance of convalescence.

After a certain period (perhaps not many days, but commonly several weeks or months), a remission of the violence of the symptoms takes place; and the patient, being removed from causes which tended to excite irritation, and a suitable treatment adopted, becomes more tranquil. The alimentary canal resumes its functions as in health, with the exception, that costiveness is in some cases continued. The other

sympathetic phenomena also disappear. The patient begins to regain flesh, and the general appearance indicates, that the function of nutrition is again restored to its healthy state. It must be observed, however, that the menstrual discharge may not be re-established for months, nor indeed until decided convalescence has taken place.

This period of decrease, during which the intellectual disorder may have suffered little diminution, varies extremely in duration, so that as long as an incurable state is not made manifest, by the occurrence of Dementia, Epilepsy, or Paralysis, we may still hope for a favourable termination, and we ought not to relax in our endeavours to promote it.

The return of sound mind, like the attack of the disease, has occasionally taken place suddenly; either by a spontaneous effort of nature, or by certain mental emotions, excited by the sight of objects formerly beloved, or of a similar description. For instance, a young lady became insane, in consequence of severe disappointment; she attempted suicide in various ways, and it was therefore, found necessary to watch her strictly. During the day time, she sat apparently in a state of sullen abstraction, and seemed to take no notice of what was going on. After remaining in this state for about three weeks, as she was seated in her usual manner, she uttered a shriek, appeared in a state of alarm, and confusion, and then suddenly recovered. She had not the slightest recollection of anything that had occurred during her insane state.

Such cases are, however, of rare occurrence; the organization of the mental faculties, though easily deranged, is in general restored to its healthy state by slow degrees alone; and where cures do take place suddenly, they are less to be depended upon, and are more subject to relapses.

Patients, who hitherto have seemed quite unconscious of the persons and objects around them, now begin to take a little notice of them; the power of attention is by degrees restored to its natural condition; and conversation, about their erroneous ideas and the absurdity of their conduct is now listened to. Natural affections, likewise, re-appear; he who hitherto never mentioned, nor seemed to think of his relations, or friends, or of his own situation, will now be affected, or even shed tears, when they are spoken of; and, the mother of a family, becomes uneasy on account of her household affairs, and expresses her wish to return to manage them. Employment, quite neglected during the disease, is now resumed, — at first perhaps with indifference, but gradually with increased relish.

In the early stage of convalescence, although the delirium has very much subsided, still, a correct judgment is prevented by weakness of intellectual power generally, and especially by inability of exerting attention. The patient, at times, being uncertain of himself, manifests hesitation and indecision; and his actions appear the result of the direction of those about him, rather than the effect of his own reasoning.

It has been observed, that for the most part, the insane do not appear to forget what has taken place during their disorder; the recollection of every incident, indeed, seems to be retained by some. But in general, (probably from supposing that they are not considered to remember the events occurring during their mental derangement), their recollection of them is seldom made known, unless accidentally called forth.

Along with favorable changes in the exercise of the intellectual faculties, other changes take place; confirming the wished-for termination. The sleep returns. So long as want of sleep continues, or is disturbed by dreams, and sudden awakings in a fright, a relapse is to be apprehended. This circumstance requires particular attention; for patients, in order to accelerate their return to their friends, frequently do all they can to deceive those around them, respecting the true state of their minds.

The general sensibility, also returns; and some patients will now, for the first time, complain of uneasy sensations in the head, and feel pain in the limbs, thorax, and abdomen, with general lassitude, in consequence of the violent movements undergone during the active stage of the disease. Headache, sometimes continues during this period, but in a less severe and continued form.

All the other functions, which have not been restored during the preceding period of the disease, now return to their usual state; in particular, the men-

strual discharge, either by the unassisted efforts of nature, or by appropriate treatment. The return of this discharge, is not, however, always accompanied by the cure of the mental disorder; and, on the other hand, the cure may take place, although the menstrual discharge may not have appeared.

The violent, disorderly movements of the body, and of the countenance, cease; the skin regains its natural colour, feeling, and general appearance, a little paleness perhaps excepted: the convulsive features of the maniac, as well as the contracted ones of the melancholiac, give way to calmness, and natural expression, and the change is so remarkable, that in some cases, we can scarcely recognise our former patient. In every case, so long as the figure has not resumed its ordinary appearance, we ought to be upon our guard, even though the patient appear tranquil and rational.

We are not to look for what is termed a "crisis," or critical termination, in the progress of insanity, the cure almost always takes place gradually; at the same time, it is proper to keep in mind, that a recovery is occasionally preceded by diarrhæa, or by excessive perspiration; the appearance of boils or carbuncles, or of erysipelas, has also preceded recovery.

When all the functions of the body have returned to their regular exercise; the external appearance, and the physiognomy expressing tranquillity, confidence, and satisfaction; when the mind appears to the physician, as well as to the patient himself, to have regained its energy and self-control; when he admits

that his mind has been disordered, and at the same time freely communicates the details of his state, during that period; when he returns with pleasure to his occupation, and to the objects of his affections; and, when all this lasts for a moderate length of time, varying according to the duration, intensity, and nature of the preceding delirium, we may safely pronounce the insanity, in such cases, to be at an end.

Those who have been deranged, occasionally retain something unusual in their disposition, after their reason is restored; — some are very sensitive, and think that when any of their past actions are talked of, it is for the purpose of finding fault with them; others again, having in their delirium, abused or injured friends or relatives, are uneasy and vexed on this account.

Sufficient allowance is not made for patients of this description; it is sometimes supposed by those, to whom the insanity has not been very manifest, that many of their actions have originated in malice, and hence reproaches are made, which greatly tend to keep up that state of uncertainty in the mind already alluded to, and which is very likely to lead to a relapse.

Indeed, I have known a recurrence of the insanity, to have taken place from this cause, on the very day that the patient returned home, after having been quite well for some time previously to leaving the asylum. It would be prudent, therefore, for persons who are likely to be exposed to these occur-

rences, to change their abode for a time, until their mental health be fully established.

That plan, which has for some time past, been employed in Bethlehem Hospital, and which has recently been recommended by the Commissioners in Lunacy, of granting leave of absence from the asylum, or other place, in which a patient may have been confined, for a short time, previously to the final discharge, is a most beneficial arrangement; and does good, not only by keeping a salutary check over the patient himself; but also by teaching the friends and relatives to bear with any little oddities of manner, &c., that may still remain, knowing him to be still a patient whose recovery is not yet fully recognised.

SECTION II.

DEMENTIA.

We have now to enter upon the consideration of the most distressing part of our subject,—I mean the termination of insanity in Dementia, or Fatuity.

Pinel, the first who separated it from the somewhat analogous state of Idiocy, has defined it to consist in "rapid succession, or uninterrupted alternation of insulated ideas; evanescent and unconnected emotions; continually repeated acts of extravagance; complete forgetfulness of every previous state; diminished sensibility to external impressions; abolition of the faculty of judgment; perpetual activity, without object or design, or any internal sense of its taking place."

The perceptions are obscure, feeble, and of short duration,—scarcely leaving a trace behind; external objects appear to make little impression,—and correct ideas of them not being obtained, the patients are incapable of comparison. The power of attention is also lost,—the memory, or power of recollection, is so

much enfeebled, that things of vital importance are forgotten, and events happening immediately before are lost sight of. The patients have the most incoherent and incongruous ideas, and they will repeat words and sentences without meaning, totally unconscious of what they say.

In a few words, the fatuous, or demented, are almost entirely deprived of perception, of attention, of *active* memory, and consequently of the elements of intellectual operation. All of them, however, are not destitute of *passive* memory; and, although events of recent occurrence are forgotten, they occasionally retain some remembrance of the past. The social affections are blunted, and are as feeble as the memory; they appear to have neither desire nor aversion—regard, nor hatred; they see their nearest relations with the same indifference, as those who are strangers to them,—the arrival of a friend no more gives pleasure, and his departure is beheld with equal unconcern. To many, neither indulgence nor privation affords either pleasure or pain. As no recollections nor hopes attach them, they are quite unconcerned about the events of life,—alike indifferent to everything, no occurrence affects them. They may laugh and seem merry, when others are in grief; and shed tears and appear sad, when others rejoice. And in some cases, although their posture be rendered uneasy, by causes that might be easily and speedily removed, they do nothing to change it.

With regard to the powers of volition, they are, for

the most part incapable of forming resolutions; hence their actions are vague, uncertain, and performed without decision. Indeed, patients of this class have seldom sufficient energy to render them intractable; and although sometimes, they will listen to neither entreaties nor menaces, they are on the whole, much more manageable than either maniacs or monomaniacs.

Useful and agreeable acquirements, formerly cultivated, are, in general, lost. They are averse to taking exercise, and when they do, they walk without object; or forget their object before they have attained it.

Some are disposed to a sort of automatic movement, constantly repeated, to which the term "Tic" has been applied by the French. One, for instance, has a continual action in his limbs,—he may bend them incessantly, as is the case with a patient of mine, in Bethlehem Hospital,—or he may be constantly walking. Others are perpetually scribbling, and frequently about former affections and actions. A female patient, in the Hanwell Asylum, used to spell all her words; another, when a book was placed in her hands, commenced an incoherent rhapsody on religious subjects. Some will continually utter a few broken sentences, perhaps a word or two, or begin a phrase without finishing it; one will incessantly clap his hands, or smack his lips, another will swing about his body in the same direction for a length of time.

Some of the patients of this class, are inclined to be mischievous, destroying whatever they can lay their hands upon, without object or design; others are in-

clined to steal; or to scatter things about, like infants; and others again, are inclined to dress themselves in a grotesque manner, with any old finery or gaudy rags that may come in their way.

The physiognomy of those in a state of Dementia, is in general peculiar; the features appear relaxed; the eyes are without expression, dull, and sometimes suffused or watery; the pupils are in general either much dilated or contracted; the regard is unsteady, and the visage is stupid and vacant, without expression, or having that of amazement or astonishment depicted on it; the complexion is for the most part pale, and the lips are sometimes pendant. When there is palsy combined with Dementia, the patient is apt to slaver, and the face is drawn to one side. The body is generally, but not in all cases, inclined to be fat; and there is in some, a tendency to apoplexy.

These patients in general sleep well, even during the day time, and their sleep appears to be sound, and uninterrupted by dreams. They generally eat a great deal, and some have a depraved and disgusting habit of eating fæcal matter, although plentifully supplied with food. Their dejections are generally free, and are very often passed involuntarily.

We are indebted to Pinel for having first observed, that excessive evacuations in the commencement of Mania, generally bring on Dementia, and that such patients, if cured, have sometimes become maniacal, previously to the restoration of reason. This transition deserves attention, and ought to teach

us, not to give an unfavourable prognosis too hastily.

Dementia differs essentially from Mania and Monomania; in both of which, the delirium seems to depend upon increased energy of the intellectual functions of the brain, and the patients are actuated by errors of sensation, and false perceptions consequent thereon; by the crowd of ideas, rushing as it were into the mind; or by the attention being strongly riveted on a few of them. But in Dementia, there are few if any ideas, and these are evanescent, and not at all dwelt upon; there is no determinate will, and every act denounces debility, both mental and physical. Whilst the maniac cannot control his attention, and that of the monomaniac, is fixed on a particular train of ideas; the power of exerting attention, seems to be wholly wanting in Dementia.

We must, on the other hand, avoid confounding Dementia with Idiocy. The idiot has never had the powers of his intellect sufficiently developed to enable him to reason,—in Dementia, these have formerly existed, but the greater part, if not the whole of them, are now obscured, or are completely lost. Idiots neither remember the past, nor look forward to the future. In Dementia, this is also frequently the case, but still recollections sometimes do appear, and may awaken a gleam of hope in the friends of the sufferer. In Idiocy, the manners and actions are those of infancy; whilst in Dementia, they retain the character of maturer years, and an impression of the patient's

former state. Idiots have never had perception, memory, or judgment,—some of them indeed, have scarcely any signs of animal instinct; moreover the external conformation (although varying exceedingly) generally indicates some deficiency.

Three varieties of Dementia have been described.

The first has been termed "Acute Dementia,"—and is generally brought on by fevers, hæmorrhages, debilitating treatment in Mania or Monomania, suppression of habitual discharges, and by intemperance. It differs from the other varieties, in being more likely to yield to medical treatment; it has also disappeared on the re-establishment of suppressed evacuations; and an attack of Mania, as already noticed, has produced a critical, and happy termination.

In the acute variety of Dementia, the patient has a vacant and stupid countenance, generally pale; he is totally indifferent about the persons and things around him; he is quiet, and makes no reply to questions put to him; and very often, his urine and fæces are voided without consciousness. The following may be taken as an example.

A female, aged thirty-five, subject to Intermittent Mania, was, after an interval of some duration, affected with Acute Dementia. She made no replies to questions,—never stirred from the place in which she was placed; nor altered her posture. She was perfectly helpless,—being laid in bed and lifted from it; and required to be urged to perform the necessary offices of nature, as she never attended to them

of her own accord. Her insensibility was so great, that no pain appeared to be felt on the insertion of an issue in the neck. This state lasted three months, and terminated rather suddenly in recovery; accompanied by pain complained of in the head, and a copious discharge of saliva.

Sauvages mentions a case of this description, under the name of "Melancholia Atonita;" and in describing the symptoms, says: "The patient never moves from one place to another, nor does he alter his position,—if he be seated, he never gets off his chair,—if standing, he never sits,—if lying, he never rises; and never moves his feet, unless they are pushed aside,—if asked a question, he does not answer,—he does not yield to admonition, nor does he pay any attention to objects of touch, —he seems immersed in profound thought,—yet at times he is more awake. If food be put into his mouth, he eats; and if liquor be presented, he drinks." His patient was a man of about thirty years of age, who had been terrified by the thought that God Almighty had condemned him to eternal punishment: he recovered at the end of four months.

Dr. Hunter narrates the following case, occurring in a seafaring man, aged forty, admitted into the York Asylum; who, during his abode there, was never observed to express any desire for sustenance; nor to show any preference for it before his medicines. During the first six weeks after his admission, he was fed after the manner of an infant; a servant undressed him at night, and dressed him in the morning: after which, he was

conducted to his seat in the sitting-room, where he remained all day with his body bent, and his eyes fixed upon the ground. Everything was indifferent to him, and he was regarded by all about him, as endued with little more than vegetable life. In this state of insensibility, he remained nearly four years and a half. One day, at the end of this period, on his entrance into the parlour, he saluted the convalescents, with the words, "Good morning to you all;" and then thanked the servants of the house, in the most affecting manner, for their tenderness to him, of which he had begun to be sensible some weeks before; but till then, had not had resolution to express his gratitude. A few days after this unexpected recovery, he was permitted to write a letter to his wife; in which he expressed himself with propriety. At this time, he seemed to take peculiar pleasure in the enjoyment of the open air; and in his walks, conversed with freedom and serenity. On making inquiry concerning his feelings during the suspension of his intellectual powers, he replied that his mind had been totally lost; but that, about two months before his full restoration to himself, he began to have thoughts and sensations, which at first served only to excite fears and apprehensions, especially in the night time. Shortly afterwards, he returned to his family; and resumed his avocations.

The second variety is termed "Chronic Dementia;" and besides being the consequence of Mania and Monomania (for it may be regarded as the last stage of mental alienation), has also been brought on by

extreme study, by abuse of venery, and by onanism, by apoplexy, palsy, and epilepsy. A recovery is of extremely rare occurrence.

The third variety, termed "Senile Dementia," is a consequence of old age, coming on with gradual failure of all the organs of the œconomy. The memory fails, the imaginative powers disappear, the judgment loses its energy, and the old man gradually falls into second childhood. It is unnecessary to add that this is incurable. It may, however, be proper to observe, that the form of the insane state in the old age, is not invariably that of Dementia, as Mania has been known, though rarely, to make its appearance in very advanced life. When this is the case, the patient either soon sinks, or else the mental disorder speedily assumes the form of Dementia.

Dementia is sometimes, though rarely, intermittent; I have only met with two cases of this nature, both were females.

CHAPTER XIII.

THE TYPE, PROGNOSIS, AND COMPLICATIONS OF INSANITY.

SECTION I.

TYPE.

Insanity most commonly assumes the continued form; but it rarely preserves an uniform degree of intensity in all its phenomena. An exacerbation, or increase of symptoms, frequently takes place; and this, for the most part, in recent cases, shows itself in the after-part of the day: the pulse becomes more frequent, and sometimes stronger; the thirst is more urgent; the cheeks become flushed, and the head hot and often painful. Generally speaking, whilst this febrile exacerbation lasts, the patient is inclined

to be quiet, and is less susceptible of the influence of causes of excitement.

In the remittent form, the remission may be of several days, weeks, or even months duration. The symptoms having declined, and reason being in some degree restored, we might be led to believe that convalescence was about to take place, did we not find that the sleep continues unrestored, or disturbed, and that no farther amendment takes place beyond a certain period.

We can scarcely consider insanity to be *intermittent*, unless the return of the symptoms takes place at remote periods, for instance from half a year, to a year, or more; for when relapses approach nearer to each other, we can only look upon the intervals as states of *remission*.

I think we must give an unfavourable prognosis, as to the permanent recovery, in all cases of remittent, or intermittent insanity, because the attacks, for the most part, become more frequent, or they last longer, until at last the one attack runs, as it were, into the other, and an incurable state is established.

With regard to relapses, it may be observed, that few diseases are so liable to these as insanity, it having been computed that they occur in hospital practice to the extent of 12 per cent. In the upper classes, however, the per centage is less, and for reasons that must be sufficiently obvious. Whilst the latter are enabled to obtain many things, that conduce to preserve them from relapse, and are on re-

covery received by their relations with pleasure and satisfaction; the poor, and especially women, too often are exposed to circumstances strongly tending to renew their disorder,—their homes being uncomfortable, their husbands perhaps dissipated, and their children neglected, with many other subjects of uneasiness.

SECTION II.

PROGNOSIS.

Insanity cannot be said to have a directly fatal tendency, since it not uncommonly happens that persons, labouring under it live to an advanced age, particularly if the form of the disease be mild. I myself have attended a gentleman, who lived upwards of half a century in this state; and there is at present, in Bethlehem Hospital, an old woman, who has been there for nearly sixty years.

Nevertheless, it must be allowed that insanity, frequently exercises an indirect influence in abridging the duration of life. The progress of disease in the brain, the action of external agents and moral influences, tend to induce certain diseased states; in particular, paralysis.

With regard to the probability of curing the disease, I would observe, that a hasty prognosis is to be avoided, as it is time alone that can enable us to

decide. In one respect it were far better to err by giving a favourable, than an unfavourable prognosis. While hope is held out, efforts will be continued, and every attention paid to promote recovery. If hope be denied, the case is inevitably consigned to chance, and there is no probability of recovery left, but from the efforts of nature.

It may be said on this subject, with some degree of confidence, that the prognosis is more favourable in early, than in advanced life; although cases commencing after the age of sixty, have recovered.

It is more favourable in Mania than in Monomania, especially when the latter is characterised by depression.

In partial insanity with depression, we often find chronic disorder of some of the abdominal viscera, coexisting with a diseased state of the brain, and in such cases, therefore, we have very little hope. The patient generally becomes weakened in body, as well as mind, by every succeeding paroxysm, and at last sinks into a state of incurable Dementia, and seldom lives long.

Chronic Dementia and Idiocy, may be considered incurable; still, the condition of the patients may be much improved; since many of the latter class even, may, by a sort of education, be made to perform a few rational and useful actions.

The chance of recovery is greater on the first, than on subsequent attacks, and the longer the disease has lasted, the less favourable becomes the prognosis; but

our endeavours ought never to relax, until the appearance of Dementia is unequivocally established.

The probability of cure, is greatest in puerperal insanity; and also in those forms of the disease produced by causes acting suddenly, as intoxication, retention of habitual discharges, or sudden transference of morbid action from other organs.

When the state of furious excitement is succeeded by melancholy, and when after a raving paroxysm of considerable length, the patient inclines to be quiet and to sleep, the prospect of cure is very considerable.

The more strongly hereditary predisposition is marked, the less probability is there of obtaining a permanent cure. The disease may leave the patient for a time, but the predisposition still existing, he too often suffers a relapse.

If the disease, owing to the violence of sympathetic symptoms, assumes the appearance of acute or febrile delirium, and if after the disappearance of these symptoms, and the restoration of bodily health, there be no amelioration in the mental disorder, the prognosis is unfavourable.

Insanity attended by the peculiar species of paralysis, to which the name of general palsy of the insane has been given, is in general hopeless. In my practice, I have only met with one patient in whom a cure was effected, after the disease had once unequivocally manifested itself; and even in this case, the symptoms of palsy re-appeared at the end of two years, and the patient ultimately sunk under it.

The combination with the ordinary form of palsy (hemiplegia) may also be regarded as most unfavourable. In both these disorders, the nervous system is disorganized to such an extent that the restoration to a sound state, appears almost to be impossible; and, on this account, patients of the above description, are excluded from some of the public hospitals, for the reception of the insane. Of more than 4000 cases of insanity, mentioned by Esquirol, there are only three in which insanity combined with palsy, were cured. In my own practice I have only met with two cases in which a cure took place. In both of these cases, the palsy remained after the disappearance of the mental disease.

With regard to the mean time in which a cure of insanity takes place, much diversity of opinion exists. Thus, according to Pinel, the greater number are effected in six months; while another great authority, Esquirol, thinks we may extend it to twelve months; stating that nearly as many have been cured in the second year of the disease, as in the first. In this, however, I do not agree with him; for in my own practice, I have found the greater number of cures to be effected within from three to nine months of the period of the accession of the disease; and that, in recent cases, that the proportion of recoveries within the first six months, is greater than all the rest put together; as will be seen from the following tables.

SUMMARY OF 562 CASES OF INSANITY, IN BETHLEHEM HOSPITAL.

TABLE I.

	FEMALES.				MALES.			
	Duration of the disease on the commencement of Treatment.	Cured.	Uncured.	Total.	Cured.	Uncured.	Total.	
MANIA.								
	1 month	73	12	85	37	5	42	
	3 months	36	11	47	29	9	38	
	6 months	11	6	17	9	9	18	
	12 months	5	2	7	3	4	7	
				Died ... 8			Died ... 5	
				164			110	= 274
MONOMANIA.								
Pride.	1 month	10	2	12	13	2	15	
	3 months	6	3	9	12	1	13	
	6 months	2	2	4	1	2	3	
	12 months	1	4	5	0	1	1	
				Died ... 2			Died ... 3	
				32			35	= 67
Melancholy.	1 month	20	8	28	11	2	13	
	3 months	26	6	32	7	0	7	
	6 months	14	3	17	4	3	7	
	12 months	7	7	14	2	3	5	
				Died ... 8			Died ... 2	
				99			34	= 133
Love.	1 month	4	2	6				
	3 months	0	2	2				
	6 months	1	0	1				
	12 months	0	3	3				
				12				= 12
Jealousy.	12 months	0	1		1	0		= 2
Fear.	1 month	5	0	5	6	4	10	
	3 months	5	2	7	1	0	1	
	6 months	1	3	4	2	3	5	
	12 months	1	2	3	1	0	0	
				Died ... 1				
				20			16	= 36

	FEMALES.				MALES.			
	Duration of the disease on the commencement of treatment.	Cured.	Uncured.	Total.	Cured.	Uncured.	Total.	
MONOMANIA.								
Demonomania ...	3 months	1	0	1				
	6 months	0	1	1				
	12 months	1	0	1				
				3				= 3
ACUTE DEMENTIA.	1 month	1	1	2	5	0	5	
	3 months	8	1	9	5	2	7	
	6 months	1	1	2	0	1	1	
	12 months	3	0	3	1	1	2	
							Died... 2	
				16			17	= 33
MANIA, WITHOUT DELIRIUM.	1 month	1	0					
	3 months	1	0	2				= 2
	Total...	244	86	Died...19	149	52	Died... 12	= 562

In five years ..... { 393 cured. / 138 uncured.

TABLE II.

	Females.	Males.		
Propensity to suicide occurred in 73 of the above cases, viz.....	35	17	Recovered ... 52	
	11	4	Uncured..... 15	
	4	2	Died 6	
				— 73
Propensity to murder existed in 4 cases.....	1	1	Cured	
	1	1	Uncured	
				— 4
Propensity to steal.....	1		Cured.....	1
Propensity to burn.....		1	Uncured.....	1
Propensity against nature*		1	Cured.....	1
Propensity to drunkenness.....	1	1	Cured.....	2

* In this case, a cure followed the exhibition of large doses of camphor.

TABLE III.

AGE UPON ATTACK.

Ages.	Females.	Males.
Under 15 years	2	2
From 15 to 20	16	15
„ 20 to 30	101	64
„ 30 to 40	100	55
„ 40 to 50	72	41
„ 50 to 60	43	29
„ 60 to 70	15	7
	349	213

TABLE IV.

SOCIAL STATE.

State.	Females.	Males.		
Single	93	75	Cured	
	48	31	Uncured	
	4	3	Died	
				254
Married	133	66	Cured	
	29	19	Uncured	
	14	9	Died	
				270
Widowed	18	8	Cured	
	9	2	Uncured	
	1	0	Died	
				38

TABLE V.

SEASONS.

Commenced in	Females.	Males.	Discharged well:	Females.	Males.
January	15	11	January	11	5
February	24	12	February	18	4
March	42	22	March	18	9
April	34	17	April	26	11
May	30	16	May	13	17
June	40	20	June	22	16
July	24	22	July	21	16
August	30	14	August	23	11
September	30	22	September	22	10
October	22	21	October	17	17
November	23	19	November	15	15
December	35	17	December	38	18

TABLE VI.

RELAPSES.

RECURRENCE OF THE DISORDER IN THE COURSE OF FIVE YEARS.

In 1 person three times
In 4 persons twice } All of whom recovered.
In 23 persons once
In 20 persons once, of whom 1 died.
3 became paralytic.
16 remain insane.

TABLE VII.

RECOVERIES, AND DURATION OF TREATMENT.

Month.	Males.	Females.
1 -	3	1
2 -	22	23
3 -	26	50
4 -	20	23
5 -	16	30
6 -	17	32
7 -	10	17
8 -	5	11
9 -	8	12
10 -	1	15
11 -	9	6
12 -	5	11
13 -	2	3
14 -	2	4
15 -	0	0
16 -	2	3
17 -	1	1
18 -	0	2

TABLE VIII.

ANNUAL ADMISSIONS, CURES, and DEATHS of CURABLE PATIENTS, in BETHLEHEM HOSPITAL, from 1820 to 1846, inclusive.

Year.	Admitted.			Cured.			Died.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1820	56	68	124	26	34	60	2	2	4
1821	58	77	135	22	21	43	1	5	6
1822	55	110	165	22	44	66	5	6	11
1823	57	88	145	21	51	72	4	1	5
1824	65	90	155	23	36	59	1	5	6
1825	72	98	170	30	40	70	6	6	12
1826	67	95	162	24	46	70	1	5	6
1827	64	85	149	26	38	64	6	3	9
1828	87	117	204	43	68	111	5	1	6
1829	78	117	195	56	70	126	6	4	10
1830	83	118	201	36	74	110	2	4	6
1831	81	131	212	35	63	98	5	1	6
1832	62	101	163	23	69	92	2	3	5
1833	61	123	184	25	55	80	1	4	5
1834	102	116	218	49	65	114	8	2	10
1835	111	145	256	36	74	110	5	8	13
1836	109	144	253	50	85	135	9	11	20
1837	119	177	296	61	94	155	9	8	17
1838	107	163	270	58	120	178	6	9	15
1839	104	181	285	54	83	137	9	8	17
1840	127	181	308	72	108	180	4	8	12
1841	101	165	266	58	99	157	13	11	24
1842	127	195	322	57	105	162	8	7	15
1843	109	175	284	56	103	159	8	11	19
1844	118	168	286	58	70	128	6	13	19
1845	110	205	315	62	118	180	8	7	15
1846	125	168	293	66	95	161	2	4	6
	2,415	3,601	6,016	1,149 or 47·57 per cent.	1,928 or 53·39 per cent.	3,077 or 51·14 per cent.	142 or 5·87 per cent.	157 or 4·35 per cent.	299 or 4·97 per cent.
	Excess of Females over Males, 49·11 per cent.								

SECTION III.

COMPLICATIONS.

The diagnosis of diseases occurring in the insane state, is a point of importance, and is attended with more than ordinary difficulty. From the diminution of sensibility, the loss of memory, and the concentration of ideas, symptoms of disease are imperfectly described; moreover, imaginary sufferings are complained of, which may tend to mislead the physician. In general, therefore, we must ascertain the state of the health of our patients, not so much from their replies to our questions, as from their external appearance, the expression of their countenance, the state of their digestive functions, and of their muscular power, as well as from changes in the state of their mental symptoms.

When a patient becomes, of a sudden, calm, without intellectual amendment, shuns noise unheeded before, prefers to be alone, or to be in bed, and loses appetite, we ought to examine him very minutely to ascertain

the state of his health; if very soon there is an increase of debility, with refusal of food, and a sinking or collapsed appearance of the countenance, the loss of health can admit of no doubt; an acute disease is most probably already formed, and is about to show itself.

The progress of Chronic diseases in the insane is more insidious,—the predominant feature in them, is increase of debility. I shall, therefore, make a few remarks upon some of them,

And first of that which has been termed

CHRONIC CEREBRAL IRRITATION.

This is a common disease in long standing insanity. The approach of it may be inferred, when the delirium becomes less violent, and assumes the character of Dementia. The patient becomes silent and stupid, at the same time, the pulse becomes frequent, and is often hard and strong; in some cases, the pupils are much contracted; the sleep, too, (if it had been restored, as it frequently is on the occurrence of the chronic state) becomes again disturbed. This state of irritation, which, to judge from appearances on dissection, depends on chronic inflammation of the membranes of the brain, may exist a considerable time, without sensibly affecting other functions. Sometimes, indeed, it appears not to be fatal of it-

self,—other diseases occurring to hasten the termination of life.

It may, nevertheless, be the sole cause, and in such cases, increase of general debility, with emaciation, and perhaps diarrhœa, precede death.

PARALYSIS.

With regard to paralysis occurring in the insane state, I would observe that two varieties may be distinguished: the first, termed, Chronic General Paralysis of the insane, and the second, Acute Paralysis.

Chronic General Paralysis is much more frequent in males than in females, and generally accompanies the variety of insanity, which is characterized by ideas of pride or wealth, although by no means confined to it. It may last from a few months to several years, and commences with a slight defect of speech followed by weakness of the lower extremities, which gradually spreads until the whole body is affected; the mental disease assumes the form of Dementia. In many instances, the disease shows itself on the commencement of the insane state, or soon afterwards; particularly when this takes place after the age of forty years. The prognosis is, generally speaking, hopeless. In dissecting such cases, a variety of diseased appearances are observed; in particular, changes in the consistency, &c., of the white substance,—effusion of serous fluid, within the arachnoid membrane and into

the ventricles,—layers of coagulable lymph, and a violet or purplish hue, over the cineritious substance of the brain, caused, I presume, by increased vascularity.

The acute variety of Paralysis sometimes occurs in the progress of insanity, and particularly in a state of Dementia. Pale, feeble, and emaciated patients, are equally liable with the strong and plethoric, with short neck and flushed countenance; a condition which in the *sane* state, is so often connected with a tendency to apoplexy and palsy.

The approach of an attack is generally marked by silence, and a degree of stupor for some days previously. On the attack taking place, the patient becomes quite insensible, and incapable of performing any movement. The pulse is frequent, the face, however, may be pale and the respiration unimpeded. This state may continue several hours, or it may be days, and the patient may not die on the first attack; but Dementia, if it did not previously exist, now takes place, and partial loss of motion remains. Dissection has not yet enabled us to ascertain the peculiar morbid state of the brain, giving rise to this variety of palsy. The treatment to be pursued in such cases, is to endeavour to produce a derivation from the head, by smart purgatives, and by external stimulants, and counterirritants.

Maniacs, while in a state of violent excitement, are sometimes seized with strong convulsions, with total insensibility, which speedily terminate in death. In some of these cases, no diseased appearance can be

traced; whilst in others, great turgescence of the bloodvessels has appeared.

EPILEPSY.

With regard to Epilepsy occurring in the insane state it may be observed, that an intimate connexion between Epilepsy and mental disease, especially that in which a state of Dementia takes place, has long been noticed. Indeed when Epilepsy has existed long, it, for the most part, brings on more or less of Dementia or debility of the mental powers. It, however, may exist for several years without producing this effect; more especially if the first attack of the disease has been posterior to the occurrence of the mental disorder.

In some cases of Epileptic Mania, the excitement or fury is of a very violent description, but the most common influence of epilepsy upon the brain, as before observed, is to weaken and ultimately abolish all manifestation of mind. Very often certain signs or feelings precede the fit, such as greater excitement than usual, increased frequency and strength of pulsation in the carotid arteries, &c.; and when these occur, the patient must be instantly looked after, and prevented from injuring himself by a fall or otherwise.*

* Dr. Marshall Hall has recently published some essays on the theory of convulsive diseases, in which he states, with great clearness and precision, all that is already known on the subject of epilepsy; in addition to many valuable and original observations.

CHAPTER XIV.

IDIOCY AND IMBECILITY.

Having brought to a conclusion the subject of derangement of the mental faculties, we will now proceed to consider the privation of these faculties occurring in Idiocy and Imbecility.

IDIOCY.

Idiocy can hardly be called a disease,—it is, more correctly speaking, a state of the constitution in which the intellect has never been developed, so as

to enable the individual to acquire that degree of knowledge, which education communicates to others in similar circumstances of life with himself.

It has already been observed, that Idiocy commences with life, or else manifests itself before the period of full development of the intellectual faculties; while Dementia does not take place until after these faculties have been matured, and is then the effect of adventitious causes.

The heads of idiots are frequently defective, both in external conformation, and internal organization. The forehead is in general small, and contracted at the sides, and depressed superiorly. The eyes are irregularly placed, hence the greater number appear to squint,—some are blind in one eye; others, in both eyes. Their mouth is generally gaping, allowing the saliva to fall on their chin and clothes,—their lips are often thick and pendent, and their gums in an unhealthy condition,—their teeth soon decay. Some are deaf,—others are both deaf and dumb. This dumbness, however, may not be dependent on deafness, as it usually is, but may be the result solely of the want of the power of attention to the sounds of the voice. This distinction of dumbness, proceeding from deficient power of attention, and of that from deafness, is worthy of notice; since it has been found, that many of them can be taught to speak, when their attention can be sufficiently roused.

Idiots are often lame, their arms and hands, as well as their legs and feet, are ill made or wasted away,

and hence the difficulty in locomotion sometimes observed; they walk leaning forward, one side being more advanced than the other. When this difficulty in locomotion is observed in young children, we may predict that the infant will become idiotic, or imbecile; this being almost as sure a sign as difficulty or incapacity of speech.

Idiots are not only more or less deficient in moral sensibility, but even their physical sensibility appears sometimes to be very obtuse. For instance, a young female idiot under my care, had a pimple on her right cheek, which, by constant scratching, she had converted into an ulcer. Into this ulcer she was in the habit of pushing her finger, and thus amusing herself the whole day.

Some idiots are so low in the scale of existence, as to be destitute of the instinct of self-preservation. They do not even look after their food at the accustomed hours, nor do they appear to be at all concerned about it; so totally devoid of this first of instincts are some, that they have had their clothes burnt upon them, without appearing to have any dread of the flame, or any disposition to get away from it.

Sometimes idiots exhibit perpetual movements, forward, backward, or sideways; some are given to laughing, others to weeping, and some are inclined to be mischievous.

They have been arranged into classes, according as the privation of intellect is more or less complete.

In the first class, are comprehended those who have neither sensation nor instinct. Entirely destitute of mental existence, they are incapable of satisfying any of their wants, and must therefore, inevitably perish if not provided for by others.

Such cases, indeed, are rarely met with, but not long ago, a girl eleven years of age, was found nearly starved by the side of her mother, who had been dead for some days. This poor girl was blind, deaf, and dumb.

In the second class, are included those idiots who are endowed with all their senses, and who have likewise instinct, and physical sensibility, being capable of some sensations; for they will avoid cold, and express a sense of hunger, but unless food be brought to them they would never go in search of it. They do not attach themselves to any one, and all their actions are performed without object or reflection.

In the third class, are included those idiots who, in addition to the instinct of self-preservation, have some moral affections. They understand the object of some of their sensations, and have signs to express their wants, such as certain gestures and cries, or half articulated words; they recognise persons and things about them, and are capable of forming an attachment to those who are kind to them.

In general, the more complete the state of Idiocy, the shorter time do the individuals live. Idiots of the two former classes, seldom live beyond twenty or twenty-five years,—while those in the third class, may live to thirty-five years, or upwards.

Different names have been given in different countries to those beings, such as Cretins, Cagots, Albinos, &c.

The Cretins, are the idiots met with in the valleys of the mountainous districts of Switzerland. Their complexion, is in general, pale and sallow, and their muscles flabby. They are very subject to goitre, or enlargement of the Thyroid gland; their heads are large, with sunken eyes,—they are short sighted, and frequently squint, and are also very subject to chronic inflammation of the eyelids; which, with the great disposition to goitre, strongly indicates a scrofulous constitution. Their lips are thick, and their mouths gaping, allowing the saliva to drop out. They are likewise dirty in their habits, and like most other idiots, are much addicted to self-pollution.

Many conjectures have been formed as to the causes of Cretinism, and many reasons have been assigned; amongst which are, the nature of the water from melted snow,—the want of cleanliness, and misery from scanty and insufficient nourishment.

Each of these have been considered causes; but, according to Saussure, without reason. He refers Cretinism to the stagnation of a hot and corrupted atmosphere. Fodéré also attributes it to a hot and moist atmosphere. Others ascribe it to the sudden changes of temperature, frequent in the narrow vallies of those mountainous districts in which it prevails. The overflowing of the mountain torrents

forming marshy tracts, whence unwholesome emanations are disengaged, have likewise been considered as causes.

In the Pyrenees, however, Cretins are to be met with, where both the air and water are allowed to be very wholesome, and the inhabitants are, in general, healthy and active.

The variety of idiots found in the Pyrenees, are termed Cagots, Cagnots, or Capots; they are not quite so deficient as the Cretins of the Alps, neither is the goitre so common amongst them. M. Ramond who gives a description of them, is of opinion, that the origin of this race is derived from the Goths,—that their progenitors were leprous, — that the leprosy caused a deterioration of the blood or lymph, and that this variety of Idiocy, is owing to the said degeneration.

As Idiocy exists in a form more or less complete; and as partial or incomplete idiots manifest different propensities, though destitute of consistent consciousness, Dr. Gall was of opinion, that these circumstances afford proofs of the truth of his doctrine, that these propensities depend upon particular regions of the brain, which he said were more of less developed in the brains of idiots.

It sometimes happens, that at certain periods in early youth, when the organization acquires more development, the mental faculties seem to emerge from a state of threatened Idiocy; but, as this effect is entirely the result of natural operations, and cannot

be accelerated by artificial or violent means, punishment with a view to produce this development, is wholly inadmissible.

On the other hand, children who have been born in perfect health, and who have continued for some time to improve in body and in mind, have then gradually fallen off, and have lost the manifestations of mind already displayed.

A case of this kind is related by Dr. Haslam, that of a girl, in whom, when nearly three years old, an attack of small-pox was followed by Idiocy, although no sign of mental deficiency had previously existed.

IMBECILITY.

The term Imbecility, has been applied to that state of mental deficiency, in which the mental faculties are to a certain extent, developed; and are, therefore, capable of partial education. There is, however, no exact line of demarcation between it and Idiocy; the two states pass by insensible shades, into each other, as Imbecility likewise gradually approaches to perfection of understanding,—there is no possibility of saying where precisely one state of mental deficiency ends and the other begins, or where the latter ceases, and sound understanding takes its place.

In the imbecile, as in the idiot, it is in the power of attention that deficiency is most remarkable. From this cause, the perceptions are often incomplete; so

that it is only by frequent repetition, that they are retained. It is by *memory, and not by reflection*, that their knowledge is acquired.

As they are possessed of a limited degree of understanding, they, in like manner, have affections and passions. A proof of the existence of the passion of grief, in an individual of this class, occurred in a female,—who, having been affronted by a companion, took it so much to heart, that she absolutely died, apparently of vexation and grief. It is well known that fear and timidity, form a striking part of the character of Imbecility; physical love, too, shows itself about the time of puberty. The imbecile frequently exhibit amorous propensities, and are very much addicted to self-pollution. They are, likewise, subject to fits of violent excitement and fury. Some have strong propensities, as to stealing, others to music, and according to Dr. Gall, some have even a murderous propensity; in proof of which he cites the case of an individual who, after having killed two of his brothers, exultingly told his father that he had done so.

These poor creatures, are sometimes made the tools of designing men, and have been enticed or bribed to set fire to stacks of corn, &c., and even to houses. Under circumstances of this description, a medical man may be called upon to decide whether or not, the culprit is responsible for his actions—a question, the solution of which is sometimes attended with difficulty.

The imbecile, like idiots, have been arranged in different classes, according to the greater or less degree of deficiency of their mental faculties—without, however, any very practical result.

The causes of Imbecility are the same as those of Idiocy.

Hereditary predisposition, scrofula, rickets, convulsions, epilepsy, and severe illness in early infancy, or falls on the head, and chronic hydrocephalus. It has also been ascribed to effects produced on the fœtus, in the early stage of pregnancy, by the mother having been terrified, or otherwise violently agitated. To these causes must be added incomplete organization.

In giving an opinion, whether or not a person of weak mind, is in a state of sanity, the test which ought chiefly to influence us, is the *consciousness of deficiency* on the part of the individual himself, and his desire to remedy it. As consciousness of delusion is, under ordinary circumstances, considered as affording proof of the absence of insanity, so consciousness of deficiency ought, in most cases, to exempt the person from the imputation of unsoundness of mind, verifying the old adage of "that fool is no fool who knows himself to be a fool."

CHAPTER XV.

CAUSES OF INSANITY.

The views of the ancients respecting the causes of insanity, were chiefly confined to proximate. They wholly excluded the numerous moral causes of morbid excitement, and were ignorant of mechanical causes, produced by malformation of the bones of the cranium, &c. They placed the seat of the passions in the præcordia, because thereabouts a certain feeling is always produced when any strong emotion, such as of joy, grief, pain, or pleasure, is experienced.

In more modern times, the causes of insanity have been variously arranged by different authors; as

into predisposing, and exciting,—hereditary predisposition, the puerperal state, and the cessation of the menstrual discharge being considered examples of the former; whilst moral emotions, as fear, grief, remorse, or jealousy, have been regarded as forming the exciting causes.

They have likewise been divided into direct and indirect; the direct causes, being those which act immediately on the intellectual organ, the brain; whilst the indirect, are those which act upon it through the medium of the other organs of the body.

The division, however, which I shall adopt, is that of physical and moral causes—an arrangement which does not materially differ from the last mentioned, with this exception, that moral causes do not always act *directly* upon the brain, but sometimes *indirectly* produce insanity. All emotions of the mind, it is evident, are capable of disturbing the corporeal functions; and though in themselves moral causes, may become physical in their operation. Hence, physical causes grow out of moral causes, and these frequently lead to insanity; not, however, by direct impressions, but through the means of those morbid changes in the system which they gradually effect.

SECTION I.

PHYSICAL CAUSES.

Under this division, I shall consider certain external circumstances, which have great influence upon the human frame, and which may consequently be expected to have some share in the production of insanity,—such as climate, the state of the atmosphere, the seasons, &c.

CLIMATE.

Climate and atmospheric changes, have been, by some authors on the subject, considered to exercise great influence in causing insanity, so much so, that the supposed greater liability of Englishmen to become insane, has been attributed, by some French writers, to the variability of the weather, and the prevalence of fogs and mists in our country.

It is a well-known fact, that the inhabitants of mountainous countries, have strong passions, and are extremely jealous of any infringement upon their liberties and freedom; and that they are at the same time (as before observed, when treating of the passions) much disposed to Nostalgia, and also to suicide. On the other hand, the inhabitants of plains, and flat countries, are, generally speaking, less warlike than mountaineers; they are more easily governed, and are said to have less violent passions.

Elevated situations, especially if wild and sterile, are supposed to produce a disposition to Mania, whilst flat countries, particularly if abounding in marshes and woods, are considered as predisposing to insanity with depression and Dementia.

The state of institutions and of manners, however, exert so great an influence over the production of insanity, that the changes produced by these means in each country, render it difficult to distinguish the share which must be assigned to climate. The only general fact, which can be expressed, is, that insanity is more rare in climates where extremes of temperature prevail, as in Africa and Russia,—that it is, on the other hand, very common in temperate climates, as in France, England, Germany and Italy; a fact which is far better explained by the influence of civilization, than by that of climate.

SEASONS.

With regard to the influence of seasons, in the production of insanity, it may be observed, that summer is the one which has been considered most conducive to the production of Mania, on account of exposure to the heat of the sun. Insanity has also frequently been brought on by a coup de soleil, or sun stroke. The intermittent Mania, under which Charles the Sixth of France laboured, is stated to have been produced by this cause.

Instances have also occasionally occurred of soldiers being suddenly siezed with madness, whilst being reviewed during the heats of summer; and the same result sometimes takes place in harvest labourers similarly exposed.

Extreme cold, has likewise been supposed to exert a similar influence in the production of insanity; in proof of which, has been adduced, the considerable number of Frenchmen, who became insane during the retreat from Moscow. Other causes, however, as over fatigue, improper and scanty food, together with great mental depression, concurred on that memorable and disastrous occasion, to bring about the insanity under which they laboured; besides, the usual

effect of extreme cold, is rather to induce a disposition to deep sleep, or coma, than to produce delirium.

The form of mental alienation already existing, appears also to be in some degree, modified by the seasons. The heat of summer, as before stated, producing not unfrequently an exacerbation of insanity, as well as increasing the desire to commit suicide,—the cold of winter having a contrary effect, although it has not been proved to be favorable to the production of Dementia.

The following table, constructed by M. Baillarger from the returns of various hospitals, and printed in the *Lancet* a few years ago, shows the distribution of 20,788 patients to be—

January	1473
February	1481
March	1617
April	1784
May	1948
June...	2079
July...	2033
August	1343
September	1689
October	1700
November	1568
December	1573
Total	20,788

It is seen from this table, that insanity continues increasing from the month of January to June, and

that it continues decreasing from June to December.

If we add together the number of cases of insanity, which have declared themselves, during the six hottest months of the year, we find that they greatly exceed those occurring in the six coldest months.

Thus the months of April, May, June, July, August, and September	11,376
The months of October, November, December, January, February, and March	9,412
Difference	1,964

This result appears still more striking, if we confine ourselves to comparing the three summer months

June, July, and August... ...	5,955
With December, January, and February	4,527
Difference	1,428

On referring back to Table V, p. 257, we find these results confirmed.

Thus, out of 562 patients, there became insane, during the months of April, May, June, July, August, and September...	299
During October, November, December, January, February, and March	263
Difference	36

Again: those who became insane during the three hottest months, June, July, and August	150
During December, January, and February...	114
Difference	36

Those who are conversant with insanity, must have observed that alternation from the high to the low state, in cases of old standing disease, which occasionally takes place, and how it appears to be connected with, and dependent on changes in the season and temperature. M. Esquirol relates an instance of this, which occurred in a young lady, who became so much disfigured from small pox, that the first time she saw her face in the looking glass, her mortification was so great, as to produce an almost immediate attack of insanity, the form of which, varied with the seasons. At one time, her conversation was immoral and indecent,—at another time, her ideas were of a religious description. This was followed by a state of violent madness, and last of all, she became perfectly silent. These alternations occurred at regular intervals during a period of nearly five years; she ultimately, however, recovered her reason.*

* A case of nearly a similar description has been for some years in Bethlehem Hospital. A female, who is alternately, for several weeks together, much excited and noisy, and then quite silent and depressed.

AGE.

The next subject we have to consider, is the influence of age and sex,—and first, of age.

Under the age of puberty, the human race is almost entirely exempted from the occurrence of insanity; although, various instances are related, of children being afflicted with Mania, Nostalgia, and even jealousy, amounting to such an extent, as to verge upon partial insanity.

Dr. Haslam, makes mention of a case he had under his care, of a child whose age was between seven and eight years. M. Esquirol, also, mentions two cases of insane children, who were nine years old. One of these, during convalescence from a severe fever, became suddenly maniacal, on being informed of the death of his mother. He accused his father of putting her to death,—refused his food,—was constantly endeavouring to scratch those about him,—and was, with difficulty, kept under control. At the end of eight days (during which diarrhœa occurred) he began to take some nourishment; in three weeks more, his natural affections returned, and before the termination of another month, was completely restored to reason.

Dr. Sutherland, many years ago, mentioned to me

the occurrence of a case, under his care, in which the patient was twelve years old, which likewise recovered.

The youngest person whom I have seen labouring under Mania, was a little girl of six years old, under my care in Bethlehem Hospital. Her case will be found at the end of this work. I have, however, frequently met with violent and unmanageable idiots, of a very tender age.*

Insanity occurring in young persons, is sometimes accompanied by very rapid growth. A young man, in consequence of excessive bloodletting (improperly employed for the cure of a slight disorder) was siezed with Mania, accompanied by great debility and emaciation. A different mode of treatment and a restorative regimen, were had recourse to, and a cure was effected in five or six months, during this period, however, it was found that he had grown nine inches in height.

The efforts of the female constitution, to establish the menstrual discharge, are sometimes accompanied by mental derangement. Girls of the age of fifteen or sixteen in this situation, not unfrequently become dull and stupid, exhibiting, in a degree, the symptoms of Dementia. Occasionally, a disposition to commit suicide manifests itself.

When the menstrual function is established, this discharge itself, by its irregularities, appears to be a frequent cause of insanity; although this is denied by

* Dr. Joseph Frank records having seen, on his visit to St. Luke's Hospital, in 1802, a case of Mania (Idiocy?) occurring at the age of two years!

some authors, who contend that the functional disorder is always the effect, and not the cause, of insanity;—asserting, that in the history of such cases, we can trace some moral cause, which has given rise to the disorder. I cannot, however, agree with them in this, as I have seen many cases, in which the suppression of the menstrual discharge, was evidently the first and only cause of the insanity.

In old age, the passions and other moral causes, have lost much of that power, which they had in the outset and prime of life; and, consequently, examples of Mania making its first appearance at this period of existence, are rare; although from the general failure of the mental and bodily vigour, cases of Dementia are of more frequent occurrence at this time, than at any other.

Instances of Mania, do occasionally occur, and have been mentioned by Greding, Rush, Pinel, and others; but it is to be observed, that in all the cases recorded, the individuals are mentioned, as having had good constitutions. The most extraordinary case on record, I believe, is that of a Negress, who was sent to the Salpêtriére, in Paris. She had been a resident in the Petites Maisons, of Paris, during a hundred years, which was ascertained by finding her name inscribed in the register of that establishment, a century before; and, at the fêtes given in honor of the aged, during the French Revolution, she was acknowledged to be the oldest person in Paris. She took her removal to the Salpêtriére, so much to heart, that she actually

became maniacal, and remained in this state for some time, indeed, until her return to the Petites Maisons, when she recovered her reason. She was considered to be one hundred and twenty years old.

The oldest case which I have met with, occurred in a female at the Hanwell Asylum, whose age when she died, was considerably above one hundred. Her portrait and case, will be found at the end of the book.

The period at which insanity is most prevalent, has been stated by M. Pinel to be between the ages of 20 and 50; these limits, however, are too far apart to afford any very useful inferences, because, almost every other disease, to which man is liable, may, in the same way, be said to prevail most between those two dates.

The following statistical tables have been constructed by M. Baillarger, of La Salpêtriére, according to the statistics of Bicêtre, Charenton, Rouen, Tours, Bethlehem, Nantes, and Caen, published by MM. Desportes, Esquirol, Aubanel, De Couteville, Parchappe, &c.

Before the age of 20 years	705
From 20 to 30	1864
30 to 40	2434
40 to 50	1721
50 to 60	925
60 to 70	615
70 to 80	60
	8324

From this table it may be concluded, that insanity

is absolutely more frequent from 30 to 40 years, and that after that, the period from 20 to 30, and next that, from 40 to 50, supply the greatest number of lunatics.

A similar table, made for 8003 female patients, furnishes results somewhat different—

Before the age of 20 years	552
From 20 to 30	1485
30 to 40	1864
40 to 50	1716
50 to 60	1155
60 to 70	745
70 to 80	486
	8003

It is observed here, also, that the period marked by the greatest number of cases of insanity is that from 30 to 40; but there is, however, a difference sufficiently important from the results obtained for the men. The period from 20 to 30 is more dangerous for men than that from 40 to 50, whilst for women it is the opposite; insanity is more frequent among them from 40 to 50 years, than from 20 to 30.

From 50 to 60 years, also, there are more women than men insane.

We find that in both sexes insanity is absolutely rare before 20, and after 60 years of age.

The number of lunatics before the age of 20 would be still less considerable, if idiots and epileptics were no longer included in the same tables.

Having ascertained, in a positive manner, the frequency of insanity according to age, it remains to investigate the relations borne to the general population.

The absolute population diminishes as age increases; and it is important to compare the number of lunatics at any particular period of life with that of the individuals of the same age, in the general population. This has been done by Esquirol, Leuret, De Couteville, Aubanel, and Thore.

The results obtained by Esquirol are not the same as those obtained by M. De Couteville.

Esquirol admits that the chances of insanity become stronger and stronger as age advances, and that they are, for example, greater from 60 to 70 than from 30 to 40.

M. De Couteville, on the other hand, has been led by his researches to consider the period from 40 to 50 as that when there is the greatest number of lunatics in proportion to the general population. MM. Aubanel and Thore, differing in this respect from Esquirol and De Couteville, have found the period from 30 to 40 to be the first for frequency in the occurrence of mental alienation.

This question clearly calls for fresh researches, and it can only be completely solved by the aid of statistics comprising only lunatics, strictly so called, from which paralytics, idiots, and epileptics, shall be rigorously excluded. It will, moreover, be indispensible, in such statistics, carefully to separate the men and the women.

The age of the patient modifies, in a considerable degree, the character of the mental alienation,—thus, in infancy, Idiocy and Imbecility manifest themselves; in youth, insanity in which ideas of love and religion predominate; in mature age, Mania and partial insanity with depression, are most frequent; and in old age, Dementia.

In youth, the progress of insanity is rapid, and the form acute; and it less frequently terminates in Dementia than at an after period of life. In mature age, the disorder is more durable; and, at the same time, more apt to terminate in the chronic, or incurable stage. In old age, it more frequently still, terminates in the state of Dementia, with consequent paralysis.

SEX.

With regard to the influence of sex, it is generally understood that mental alienation is of more frequent occurrence amongst females than amongst men. M. Esquirol says, that the number of insane males predominates over that of females in countries where the average temperature is either high or low; and in support of his opinion refers to the comparative numbers in Italy and Spain, and in Russia and Germany. In

Great Britain and France, however, he asserts that the number of insane females is greater; and this is the less extraordinary, because there exists in the female a variety of causes, as disorders of the menstrual function, pregnancy, parturition, and suckling; which are, of course, peculiar to sex.

In women of an irritable habit of body, and who may be perfectly regular, there frequently appears, at the period of menstruation, an increase of excitement and irritation,—in fact, a nervous state approaching to hysteria, with fits of laughter and crying, and occasionally, even symptoms of mental alienation, such as unusual vehemence of expression and feeling; or torpor, with excessive dejection, if not delusion. The state of the nervous system in such women, is one greatly predisposed to suffer from the exciting causes of insanity. And, indeed, the feelings of women, generally speaking, are more acute than those of men; moreover, they are more exposed to disappointments in their affections.

Probable as all this may be, however, it cannot be received as an established fact, that insanity prevails to a greater extent in females than in males; because, although a greater number of females than males are to be found in hospitals and asylums for the insane, it must be recollected, that males are much more liable to General Paralysis, a disease which usually occasions death at the end of two or three years at the furthest. The mortality in lunatics being, therefore, much greater among males than among females, the number of the

latter must gradually increase in the asylums, although the frequency of insanity be not greater among them than among males.

Again, if we confine ourselves to the more certain mode of counting the number of admissions, as has been done in the following table by M. Baillarger:—

		Men.	Women.
Bicêtre and the Salpêtriére	1822 to 1833	4553	6226
Bethlehem	1744 to 1794	4992	4882
Bethlehem	1820 to 1842	2330	3115
Mareville, Nancy	1794 to 1841	1719	1278
Saint Yon (Rouen)	1827 to 1837	804	718
Saint Yon	1838 to 1843	673	616
Charenton	1826 to 1833	932	625
Tours	1816 to 1841	455	203
Dijon	1843	75	78
Turin	1831 to 1836	650	416
		17,183	18,157

The result which flows from this table is open to so many objections, that I shall abstain from drawing any conclusion from it. At Charenton, for example, there are circumstances purely local which render the admissions of males more numerous. The excess of women at Paris and Bethlehem, during the last twenty years, presents a striking contrast, again, with the results obtained at Nancy, at Rouen, at Tours, and Turin, where the number of the men exceeds that of the women. It is evident, besides, that we ought, before forming a conclusion, to com-

pare the relative proportion of men and women in the general population. This labour, which has been performed by MM. de Couteville and Parchappe, for the city of Rouen, has not yet been repeated for other towns. The question therefore remains, as yet, undecided.

Child-bearing, seems to give to many women, a predisposition to insanity; it is, however, very difficult to account for the manner, in which this change in the constitution operates upon the brain, occurring as it does, not only where there has been puerperal fever, or where the constitution has received a shock from the sudden cessation of the lochial discharge, or from weaning the child too abruptly; but, even in cases where the progress towards health has been in every respect favourable and uninterrupted.

During the space of four years, Esquirol mentions that 1119 women, labouring under mental derangement, were admitted into the Salpêtriére, of whom ninety-two (or about one in eleven) had become deranged after delivery, and during, or immediately subsequent to the period of suckling. In the higher classes of society, the proportion of persons who become insane from puerperal causes, is still greater than the above; having been calculated at not less than one-seventh of the whole amount.

Of the above-mentioned ninety-two cases of puerperal Insanity, forty-nine exhibited the symptoms of Mania, — thirty-five those of partial insanity, or Monomania, and eight those of Dementia, or Fatuity.

The critical period of after life, or "change of life," as it is commonly called, frequently leads to the development of insanity; and there does not appear to be much difficulty in accounting for this, because, certain important functions then cease, and the constitution is thereby, always more or less deranged. Personal attractions, too, are gone by, although the desire of pleasing remains undiminished; and the strong emotions of jealousy are not unfrequently excited.

At this period of life, there is often called forth a sense of religion, which, when under the guidance of reason, is the best safeguard against the attacks of mental derangement; but which is, too often, led astray by the influence of the imagination and the passions. In the lower classes, also, habits of intoxication are sometimes acquired at this important period.

Besides these exciting causes, the actual bodily infirmities, which so generally attend the cessation of the menstrual discharge, give rise to depression of spirits, with, occasionally, a propensity to suicide.

Those who have had extensive opportunities of observing insanity in both sexes, have noticed that however violent may be the delirium, and agitation of the patients, they are managed with more facility by a person of the other sex, than by one of their own. That is to say, there is a decidedly beneficial influence exercised by the one sex over the other.

This feature of insanity, is well illustrated in a case related by Pinel. A furious male patient, confined in the Bicêtre, made his escape into the

kitchen, where he laid hold of a knife, and threatened every one about him. None of the attendants of his own sex dared venture near him, but the wife of a person employed about the hospital, went up to him and succeeded in getting the knife from him without difficulty.

In summing up, we find, with respect to the influences inherent in the two sexes, that women, both by their temperament and their intellectual and moral dispositions, appear to be more predisposed to insanity. They are, moreover, subject to predisposing causes peculiar to themselves, as menstruation, pregnancy, parturition, lactation, the critical age, &c. It will be evident therefore, that if the influences strictly depending on the sex were the only ones capable of provoking insanity, this disease would be more frequent in women; but the balance is restored on the side of the men by the influence of general paralysis, so frequent among them, by excesses of all kinds, by the impulse of ambition, and by numerous other agencies.

HEREDITARY PREDISPOSITION.

Of all the causes of insanity, hereditary disposition is the most important, and, exerts a most conspicuous influence in the production of insanity; being so powerful as frequently to produce it, without the occurrence of any other apparent cause.

Instances of six or seven in one family dying insane are upon record. In one family, five became insane at the same time of life. Some years ago, I had a female under my care who died insane; there was also, at the same time, one of her sisters, in the same house, in a state of Dementia; her father died in an insane state, and two of her other sisters had been previously confined in a lunatic asylum. About five years ago I had four sisters under my care, in Bethlehem Hospital, at the same time. Similar cases might be multiplied without end, for it is by no means unusual, to meet with more than one of the same family, in an asylum.

Mental Alienation, like other hereditary complaints, does not always manifest itself in the immediate issue, for sometimes children become insane, whose parents had never shown any symptoms of

the disease, although the disorder had appeared in the former generation, or perhaps, in some of the near relations of the individual.

The transmission of a disposition to insanity, is said to be more frequent by the mother than by the father. When the disposition exists on both sides, as it occasionally does, it is needless to say, that its occurrence takes place with more certainty.

The following tables from M. Baillarger, throw considerable light upon this subject.

Out of 453 cases of hereditary insanity, the disease was transmitted, by the mother	271
By the father...	182
Difference	89
or about one-third in favour of transmission by the mother ...	

Out of 271 families, in which the insanity has been transmitted by the mother, the disease, at the period when the observations were taken, had declared itself	Times.
In one child only	203
In two children	62
In three children	5
In four children	1
Total of insane children...	271

The insanity of the mother had therefore been

transmitted to several children sixty-eight times out of 271—that is to say, in one-fourth of the cases.

As to the insanity transmitted by the father, I have found, says he:—

That out of 182 families, in which the insanity was derived from the father, the disease had, at the time when the observations were taken, attacked—

	Times.
One child only	152
Two children	26
Three children	4
Total	182

The insanity of the father was therefore transmitted to several children, 30 times out of 182—that is to say, in one-sixth of the cases.

Thus, the insanity of the mother, while it is more frequently hereditary than that of the father, appears also, *cæteris paribus*, to reach a greater number of children.

Persons having this predisposition, very often manifest it at the same period of life as their progenitors did; and sometimes, in consequence of similar causes, presenting similar forms of disease, and occasionally dying, under like circumstances—all marking the strong action of hereditary disposition.

At the same time, it must be noticed, that the transmission of insanity can by no means be *certainly* predicated; nor ought it to be regarded as an

insurmountable barrier to cure. To speak correctly, it is only a tendency to insanity which is inherited, —a greater than ordinary facility to be acted upon by circumstances calculated to call the disease into action.

Persons of robust constitution, with dark hair, and who are susceptible of strong and violent passions, generally retain the same character when insane. They are particularly liable to Mania, with fits of furious excitement.

On the other hand, persons with light-coloured hair are seldom so furious or unmanageable; although, cases of puerperal Mania must be especially excluded from this rule. Of 265 cases, which a motive of curiosity induced Dr. Haslam to observe, 60 only had fair skins, with light brown, or red hair, the remaining 205 had all swarthy complexions, with dark or black hair.

The *probability* of insanity occurring in persons having a hereditary disposition to it, may frequently be inferred from their eccentric and ill-regulated conduct,—their want of application to study or business, irregularity of temper, habits, and tastes, &c. In some cases, the actual occurrence of insanity, seems to be little more than a further advanced stage of intellectual disorder previously existing.

Certain circumstances occurring to the mother during pregnancy, have disposed the offspring to insanity. In confirmation of this fact, I may mention the following case, related by Esquirol. A lady, of a feeble

physical constitution, but possessed of great fortitude and courage, had, several times, rescued her husband from the hands of the Revolutionists in France. On one occasion, a party of them had tied him to a tree, and were standing at a little distance, about to shoot him. The lady (being then several months gone with child) threw herself between her husband and those who were about to kill him, calling out,—"you must kill me before you can reach him." Her heroic conduct on this occasion saved her husband. Some months afterwards, she was delivered of a daughter. The child had a feeble nervous constitution, and was subject to panics of fear, from her infancy; this, however, did not prevent her marrying, and she bore several children, which, together with domestic chagrins, so affected her health, that she became maniacal. During her disorder, she was incessantly haunted by visions of arms, assassins, and bloodshed, and her physiognomy was expressive of the greatest terror. She was always ready to commit acts of fury and violence, in order to drive away murderers and assassins; from this state she never recovered.

OCCUPATION.

With regard to the influence of occupation and condition of life, in the production of insanity, it may

be observed, that labourers, and others who are exposed to excessive heat in the open air, occasionally become insane, as well as those, also, who are exposed to intense heat from furnaces, as sugar bakers, and glass blowers; or to the fumes of charcoal and of metallic ores. The last mentioned causes sometimes produce tremors and palsy combined with insanity. To this, the miners in Peru are said to be peculiarly liable.

The middle and upper classes are not more exempted than the lower,—in particular it has been observed, that those who change an occupation of habitual activity, for a life of idleness, frequently become insane.

Persons who follow a profession requiring much study, as well as those who devote themselves to literary pursuits, in which the intellectual organ is kept in a state of constant exertion, are, by some authors, said to be more liable to insanity, on that account; but this, I consider to be doubtful.

It has also been said that artists, musicians, actors, and also poets, are peculiarly liable to the attacks of this disease; but in admitting this, we must bear in mind, the irregular life to which many of these classes are addicted, as well as the numerous checks and slights to which their self-love and vanity are exposed.

Merchants, especially, when large speculators, are also much exposed to insanity, because their hazardous investments and transactions keep up a state of continued inquietude, and give rise to violent mental emotions.

The medical profession, likewise, is not exempted; when students, they are apt to be morbidly apprehensive about their health,—and when further advanced in life, to depression of spirits, arising from a variety of causes. Lawyers, however, have been said to be less exposed to insanity, than any others in a similar rank of life. If this be the case, it must be owing to the great diversion of thought, occasioned by the multifarious subjects coming before them; as well as the close and accurate training, in which they are forced to keep their thoughts.

Those who, by their rank and fortune, might appear to be the least liable to the causes which ordinarily induce insanity, especially those who are at the head of states, are, however, found to be far more subject to its attacks. A table has been drawn up from ancient and modern history, from which it appears that the number of insane in the race of kings, is in the proportion of one to seventy.

One reason for the greater prevalence of insanity amongst those possessed of dignities and wealth, may be the frequency of their intermarriages, and the consequent hereditary predisposition to various diseases, which is thereby fostered and encouraged; and another may be the ease, with which they can, when young, plunge into all sorts of dissipation and excess, thus, laying the foundation in their own persons for future ill-health and disease.

Upon the whole, in considering this subject, we find that the two extremes of society, furnish the greatest number of insane.

The subjoined table, representing the employment and condition of 562 cases, formerly mentioned as having been treated by me at Bethlehem Hospital, may be interesting.

STATION AND EMPLOYMENT.

MALES.

1 Clergyman.
1 Surgeon.
1 Solicitor.
1 Stockbroker.
1 Captain (Army).
1 Captain (Sea).
2 Artists.
3 Schoolmasters and Tutors.
3 Students.
1 Chemist.
2 Engineers.
1 Ventriloquist.
5 Printers.
8 Booksellers, Stationers. and Bookbinders.
19 Shoemakers and dealers in leather.
8 Farmers.
9 Gardeners.
6 Greengrocers & Fruiterers.
16 Labourers.
1 Scavenger.
1 Costermonger.
3 Cattle-dealers.
3 Butchers.
6 Fishmongers.
4 Bakers.
9 Tailors.
4 Clothesmen & Hawkers.
4 Linendrapers.
1 Dyer.
1 Silkweaver.
8 Sailors, Watermen, and Fishermen.
16 Carpenters, Cabinetmakers, Coachwrights, Coopers, Carvers, and Sawyers.
10 Blacksmiths, Founders, and Pewterers.
9 Painters.
4 Publicans, and Coffeehousekeepers.
3 Grocers, & Tea-dealers.
1 Stoneware Merchant.
1 Mason.

(Males continued).

13 Clerks and Shopmen.
2 Butlers.
2 Coachmen.
4 Grooms and Ostlers.
8 Servants.
3 Carriers and Porters.
1 Policeman.
1 Gunner.

FEMALES.

6 Wives and daughters of professional men.
125 do. of Tradesmen.
16 do. of Farmers and Gardeners.
10 do. of Sailors and Watermen.
7 do. of Publicans.
34 do. of Labourers and Servants.
13 Teachers and Governesses.
35 Milliners, Dressmakers and Needlewomen.
23 Females supporting themselves in trade, or with small annuities.
77 Females in servitude, including ladies' companions and maids, housekeepers, cooks, & domestic servants.
4 Prostitutes.

MANNER OF LIFE.

Diet and regimen may likewise exert an influence in leading to mental disorder,—abstinence being equally injurious with excess.

The abuse of spiritous liquors has frequently given rise to insanity; and it has been ascertained that

drunkenness from wine is less injurious than that which arises from spirits. Intermittent Mania, and palsy, are frequent effects of drunkenness, as well as that species of temporary insanity which has been denominated delirium tremens, or Mania a Potu and it is said that cases of Dementia not unfrequently occur amongst the Russians, from the abuse of intoxicating drinks.

The children of habitual drunkards are more liable to insanity than those of others.

DERANGED FUNCTIONS.

With regard to the influence of secretion and excretion in the production of mental derangement, it may be observed, that the intellect is more clear, and that we are more capable of study and of reasoning, when the skin is in a healthy state; and that hysterical persons, and those of a nervous temperament, generally have a dry skin, and perspire little, if at all. In melancholy insanity, likewise, the patients perspire little,—their skin is frequently dry and sallow, although they sometimes have a disposition to a cold, clammy perspiration.

From these facts, we can readily believe that the sudden suppression of perspiration may cause mental disease; and to prove that this is the case, many instances might be given. A gentleman, perspiring copiously

about the head, applied cold water to it several times, and was soon after attacked by Mania, which terminated in Dementia. Another man, whilst out following the hounds, happened to cross a small stream, being at the time bathed in a profuse perspiration; he soon afterwards was seized with rigors and fever, which terminated in Mania.

It is well known that in health, deficiency of perspiration is generally accompanied by an increase of the secretion of urine, and that that discharge consequently is more abundant in cold countries, and in cold weather; a suppression of this secretion, therefore, occasionally produces an attack of Mania, although the usual result, no doubt, is a state of coma, or if delirium be induced, it is usually of a febrile character. Incontinence of urine, however, sometimes precedes an attack of insanity, and is very often a most troublesome symptom, during its progress.

The state of the Alvine secretions have also a great influence in disposing to insanity; the insane being, most commonly, costive.

SEXUAL INDULGENCE.

Of all the evacuations, however, which we have to consider, that of the seminal fluid exercises the most powerful influence. This important secretion may take place in a variety of ways, as by involuntary

emission, coition, and masturbation, or onanism. Excessive retention, is, in general, prevented by involuntary emission; so that we have only the effect of excessive evacuation to consider.

It is well known, that the abuse of coition enervates the whole frame, and in particular, enfeebles the functions of the brain, bringing on Hypochondriasis, Insanity and Epilepsy. The baneful habit of onanism, contracted in early youth, frequently brings on Imbecility of mind,—sometimes Mania, and debility, moral as well as physical, so great as to incapacitate those who addict themselves to this solitary vice, from any exertion, either mental or bodily; the habit is peculiary dangerous in old men, more especially if means are taken to produce excitement. I may here remark, that an inordinate propensity for coition or onanism, together with an unusual desire for strong liquors, is sometimes the first sign of mental derangement; it is, therefore, proper to ascertain whether or not these excesses have preceded, or have been subsequent, to the appearance of insanity,—in the former case, our attention should be more particularly directed to the organs of generation and of digestion.

A female became suddenly subject to attacks of Nymphomania, exciting excessive irritation, with ungovernable desire of sexual intercourse. Upon an examination of her person being made, it was found that the nymphæ had suffered enlargement; it was therefore determined to diminish their size; when this was done, the complaint immediately subsided.

A gentleman, past sixty, of sober and regular habits, suddenly exhibited strongly amorous propensities. He was observed to leave his house in the evenings,—and, after a time, was traced to a house of bad fame; about a fortnight afterwards, he began to show unusual absence of mind, and left his watch and purse in the house of a prostitute; soon after this he was seized with an attack of Mania, which soon assumed the character of general paralysis, with Dementia.

CUTANEOUS AFFECTIONS, ETC.

Cutaneous affections, when improperly treated, or suddenly suppressed, sometimes predispose to insanity. In a gentleman subject to an annual attack of erysipelas, insanity occurred, when this did not make its appearance. The same is stated to have been the consequence of the rapid suppression of itch, of herpes, and of pellagra,—of the suppression of leucorrhœa,—the presence of worms in the intestines, and also from the operation of transfusion of blood from animals.

Transfusion has been employed as an experiment in the cure of insanity; and I have heard of a man, who, having undergone the operation with this view, afterwards went about the streets of London, calling himself the martyr of the Royal Society.

Injuries done to the brain, by compression, concussion, and otherwise, sometimes produce Mania; but

more frequently febrile delirium, convulsions, and palsy, and occasionally Dementia, are the result.

EPILEPSY.

Epilepsy frequently brings on insanity, but it is worthy of remark, that when it occurs in early youth, or infancy, Idiocy is the usual result, whilst Dementia is perhaps, a more common termination than Mania, in more advanced life.

Out of 385 cases of females, mentioned by Esquirol, 269 were in a state of Mania, or of Dementia.

When Mania is produced, it has been observed that the fury which occurs, is of the most violent description.

Epileptic patients, who are not at other times insane, frequently experience delusions *before* a fit, and in almost all cases, more or less of feebleness of intellect is felt *after* the fit. The tendency to Dementia, appears also to be much accelerated when the fits are accompanied by vertigo, or giddiness.

Mental alienation, has sometimes resulted from hysteria and scrofula. Lues venerea, also, and the excessive employment of mercury, by stimulating the nervous system, have sometimes occasioned the disorder. Certain diseases also, by exciting fear and despondency, have been found in this way to act as moral causes.

SECTION II.

MORAL CAUSES.

We have now to consider the nature of the moral causes of insanity, as well as the degree of influence which they exert in producing the disease.

We cannot have a stronger proof of the frequency with which the mind is deranged, by the influence of moral causes, than the fact, that one of the first questions generally put to a patient, or to his friends, is, whether he has not met with something which has vexed or distressed him.

Where the presence of a moral cause is suspected, we must (in making inquiries regarding it) bear in mind, the great difficulty there is in ascertaining some sources of mental uneasiness, especially in women. Married females have domestic troubles, which they may be unwilling to disclose, whilst the unmarried may cherish a passion known only to themselves, — they may be tormented with secret jealousy of others

preferred to themselves,—or they may have been seduced, and abandoned by their betrayers, and may lose their reason, without the real cause ever being suspected. The desire of sexual union also, perhaps, when not satisfied by marriage, may give rise to insanity, which may assume a character different from the cause producing it; and in this way, also, we may be misled as to its real origin, and be made to consider as causes of impending insanity, that, which may be merely the effects of mental disorder already existing, although, as yet, not fully developed.

EDUCATION.

The action of these causes, may be modified by education,—by manner of life,—and by worldly condition. It has been observed, that by a very harsh mode of education, the mind becomes contracted, as it were, and the individual, if not rendered absolutely stupid, remains of a very middling capacity, and sometimes has a tendency to insanity. The old and well-known saying, therefore, that "all work and no play, makes Jack a dull boy," is founded upon just observation.

The correction of slight faults, by excessive severity, has a similarly hurtful effect. As an instance of this I may mention that of a father,

who was in the habit of severely beating his son with a cane, for the slightest fault, and who on one occasion, in order to frighten him, fired a gun at him; the consequence was, that the boy became insane,—and this is not a singular instance, of excessive severity to children being attended with so lamentable an effect.

The opposite extreme, however, is no less likely to produce bad consequences, more especially where hereditary disposition exists.

The error into which many parents fall, is that of giving their children (especially girls) an education above their condition in life. The consequence frequently is, that they become very selfish, imbibe ideas of pride and vanity, and are apt to despise those very parents who are perhaps living in penury to bestow this ill-judged education. Children of this description are very likely to meet with mortifications in their intercourse with society, such as powerfully tend to disorder the mind and induce insanity. An instance of this kind came under my notice not very long ago, in the daughter of a farmer, who was sent to one of the principal boarding schools in London. After being there for some time, she became ashamed of her parents, who, on her leaving school, in vain tried to induce her to marry a respectable man in her own sphere of life. Her pride and vanity, fostered by this ill-adapted education, terminated in her becoming insane.

Modern education, however, has improved in one respect, since the minds of young children are not impressed so much as they were with terrifying tales of sor-

cerers and witches, or with ominous dreams, or the fearful legends of former centuries.

Excess of ignorance, or excess of study, both seem to give a tendency to insanity. An ignorant man, being full of credulity, and deficient in strength of mind, is consequently less able to resist causes of mental derangement. Excess of study and application is also a cause of this malady, particularly when the exertions of the mind are strongly directed to a limited number of ideas.

The effects of excess of study, and of application to business, leading to insanity, operate somewhat in the following manner. When a man, whose habits of living are regular (and especially if his mind has not been much accustomed to mental exertion) is very anxiously engaged in business, so as to break in upon his usual hours of rest, a febrile state of body, with an irritable frame of mind, is produced; in which he becomes fretful, and does and says things which he would not have done, had his mind been in its usual state. If at this stage, he should desist from study or business, and is able to obtain his regular rest, &c., all these threatening symptoms will gradually cease—if, on the contrary, his mind continues to be harassed, increased irritability deprives him of the power of attention,—great wakefulness succeeds, with a condition of the intellectual organs, and its manifestations, favourable to the creation of unreal images, and incoherent ideas—a state verging on insanity, to constitute which, the impression of the reality of these false

ideas alone is wanting. The power of attention being now further weakened, and that of connecting ideas diminished, the confusion in his mind increases, and actual derangement takes place.

EXCITING EVENTS.

The predominant ideas of the times, whether religious or political, have great influence in the production of insanity. Thus, at the time of the Crusades many cases of disordered mind occurred. The celebrated novel of Cervantes was written expressly to expose to ridicule the insanity of knight-errantry, prevalent about the time he wrote. There were, also, it is said, many persons afflicted with religious insanity at the time of the Reformation.

This has, of late years, been well exemplified in the first French Revolution. According to Esquirol, the striking events occurring during the progress of that extraordinary convulsion, were generally accompanied by an increase in the numbers of insane, so striking, that a sort of history of it might be compiled, from the description of the cases of insanity occurring in its progress. He gives the following list:—

The persecution of the priests.
The destruction of the Bastile.

The National Assembly.
The Temple of Reason.
The trial of Moreau.
The detention of the Pope.
The murder of the Duc d'Enghien.
The Conscription.
The expedition to Moscow.
The murder of the Duc de Berri, and various other prominent events.

PASSIONS.

With regard to the passions, it may be observed, that as they exercise a great influence upon man, and upon his disorders in general; it is but reasonable to infer that this influence is more especially felt in regard to insanity.

In infancy, their effects are less observed, and are transient in their duration,—hence, one cause, probably, of madness being so seldom met with in early youth,—unless, indeed, it has arisen from terror. In adults, the passions are in full force; and, consequently, insanity is most prevalent in them. In old age, their influence subside; and hence, also the reason why insanity becomes less frequent in the decline of life. Dementia, the form of mental unsoundness to which old persons are so peculiarly

liable, being a state quite unconnected with the passions.

According to Zimmerman, the passion of love makes girls mad; jealousy, women mad; and pride, men mad. The former passion, that of love, has been a fruitful source of insanity in all ages, and jealousy and ambition not less so.

Terror, in like manner, has frequently produced insanity,—the fear of becoming insane has been, in some instances, the cause of the production of this state; and especially of relapses. Shame has likewise given rise to it. A teacher of Latin having made an egregious blunder in a composition, was so much affected with shame on account of it, that he became insane. A case is mentioned by Esquirol, of a young lady, who lost her reason, on finding herself alone with her husband for the first time. I lately attended a young clergyman in similar circumstances.

The mental struggle between moral and religious principles and passion, sometimes terminates in derangement of intellect. A young man of strict moral and religious principles, was sent up from the country to town to study; here his principles began to waver, and in the struggle between them and his passions, his reason was overturned.

The emotion of joy has been sometimes considered as a cause of insanity, but this, I think, arises from not sufficiently inquiring into all the particulars of the case. For instance, a young man through the interest of a friend, obtained a very desirable appointment; but

to profit by it, his immediate departure was necessary. Shortly afterwards he became insane, and it was generally believed that joy had turned his head; on more particular inquiry, however, it appeared that grief, on being obliged to part from a young lady, to whom he was ardently attached, was the real cause. Another person gained a large sum of money in a lottery; overjoyed with his good luck, he set off to see his friends who lived at a distance; on his journey he became insane, the cause of which was concluded to be joy. But after inquiry proved, that before he became insane, he had manifested excessive fear, lest robbers should dispossess him of his suddenly acquired wealth.

Amongst the emotions which lead to insanity, some may be so intense, as to derange the mind immediately upon their application; such as the emotions of terror, and anger or grief, at the sudden loss of fortune, or at the death of a beloved object. More commonly, their action is continued, or is repeated at certain intervals, for some length of time, before reason is overturned. The mind, dwelling on the objects of desire, or of aversion, is occupied by the same train of ideas, which, by repetition and intensity, give rise to increased determination of blood to the head, and consequent morbid action in the nervous system. In this gradual manner, love, jealousy, vexation, and grief, generally produce their effects.

RELIGION.

In regard to the influence of religion in producing insanity, I may observe, that religious principles of one kind or another, are imprinted on the mind of man from the cradle, and seldom abandon him entirely whilst life remains,—it is not, then, to be wondered at, that religion should exercise a most powerful influence on the mind. Like excessive passion, it operates more powerfully and more permanently than any other moral cause whatever. In Roman Catholic countries, however, it is said to have less influence in the production of insanity, than in countries where latitude of religious opinions and practice is permitted.

Dr. Hallaran remarks, that in the Cork Lunatic Asylum, where Catholics are in proportion to Protestants, as ten to one, no instance has occurred of mental derangement among the former, from religious enthusiasm; but several dissenters from the Established Church have been so affected. The reason for this difference, says he, is obvious. The ministers of the Romish Church, will not permit their flocks to be wrought upon. Catholics, therefore, are preserved from those doubts, which, when once engendered, generally end in conversion. The moment of danger is, when ancient opinions, in matters of faith, is

wavering. And to this danger, every Protestant is more particularly exposed; especially in a country, where toleration in religious opinions is allowed; for there, excess of fervour is most likely to be awakened.

Although I am not prepared to deny that excessive devotion, or reading upon doctrinal divinity, (leading to a distorted view of the genuine principles of Christianity,) may occasionally lead a weak or melancholy person to insanity; still, I believe that in by far the greater number of cases of madness, originating in religious ideas, the individual's mind has become bewildered amongst conflicting opinions,—a state of morbid sensibility has been induced, accompanied by false notions, more connected with mere feelings and emotions, than with calm reflection, and in this way reason has been overturned.

When insanity is the effect of a religious cause, it does not always, however, assume a religious character; on the contrary, the patient may become exceedingly impious; and those on the other hand who, previously to their becoming deranged, were indifferent about religious matters, may become very pious.

By way of recapitulation of the causes *usually* assigned as producing insanity, the following table, in 562 cases at Bethlehem Hospital may be given.

ASSIGNED CAUSES.

		Females.	Males.
Hereditary predisposition		26	12
Besides the above, hereditary predisposition was stated to have existed in 45 cases, in which, other exciting causes were assigned: viz., 34 females and 11 males.			
Irregularity in the Uterine Functions ...			
Suppressed Menses	10		
Uterine hæmorrhage ...	1		
Abortion	3	17	0
Critical period	2		
Uterine disease	1		
Pregnancy		3	0
Childbearing		33	0
Protracted suckling		4	0
Weaning		2	0
Fever...		12	4
Inflammation of the eyes		1	0
Bronchitis		1	0
Pleurisy		0	1
Pulmonary disease		1	0
Enteritis		0	1
Constipation...		0	1
Falls, and blows on the head		3	7
Acute rheumatism		7	3
Tic douleureux		1	0
Chorea		0	1
Exposure to the heat of the sun ...		1	3
Bathing in very cold water		0	1

	Females.	Males.
Excessive fatigue	1	2
Sea-sickness	1	0
Drunkenness	12	31
Fumes of wine	0	1
Fumes of blacking	0	1
Fumes of charcoal and lead... ...	0	1
Lues	1	1
Excessive use of mercury	0	1
Grief	35	1
Vexation	15	13
Remorse of conscience	1	0
Disappointed affection	20	5
Disappointed hope	1	4
Anxiety	14	7
———, distressed circumstances ...	8	8
Fear, terror	21	7
Surprise	0	1
Joy	1	3
Quarrelling	4	2
Celibacy	0	1
Marriage...	0	2
Jealousy	1	1
Adultery...	0	1
Excessive mental exertion, including much reading on religious subjects, religious doubts and fears, change of religious opinions	13	10
Previous attacks of insanity. ...	12	7
No cause assigned	76	68

CHAPTER XVI.

PHYSICAL TREATMENT.

SECTION I.

ORDINARY PROGRESS OF THE DISEASE.

When the course of the disease is regular and favorable, that is to say, when it passes through the different stages formerly described, to a state of convalescence, and the various functions, which may have been deranged, gradually become natural in their action, the object of the physician ought to be to place the system in a condition to re-establish health by its own powers. This he is to endeavour to effect, by removing those circumstances which may interrupt the operation of these powers,—by promoting favora-

ble indications,—and by avoiding violent measures, which might interrupt their salutary effects.

INCIPIENT STAGE.

It is not often, that the physician has an opportunity of seeing the disease from the commencement. When he has, he may have it in his power to oppose with success, those causes, the operation of which, has not as yet effected the loss of reason. In many cases, it would be sufficient to put an end to their action, in order to enable the mental powers to resume their usual state. For instance, if we could repair a misfortune, which, continually operating upon the mind, renders the sufferer miserable; restore the peace of mind, destroyed by the misconduct of a husband, a wife, or a relation,—or effect a union where the parties are passionately attached, we might arrest the progress of the disorder.

In this incipient stage, it is particularly necessary to keep a strict watch over the patient, because his mind is in an irritable condition, giving rise to groundless suspicion, and dislike to friends. And to want of decision in applying proper watching, and suitable medical treatment, under such circumstances, may be ascribed the loss of many valuable lives.

Perhaps no situation calls for so much skill and decision in a medical man, as that in which he is placed, when called to visit a patient in the incipient stage of insanity. The sufferer still retains sufficient intellect, to enable him to appear impressed by the effects of conversation and of advice, so that the opinion of friends, and indeed the physician's own feelings, are opposed to his better judgment, which points out to him the propriety of strict watching; and even, in extreme cases, of personal restraint in addition to such medical treatment, as may be indicated by the particular symptoms of the case.

In the administration of remedies, in such cases, it may be a matter of prudence in the physician, to warn the friends of the patient, as to the probability of the occurrence of insanity, notwithstanding all that may be done; because they are sometimes inclined to reflect upon him, and to attribute an unfavourable termination to the unskilfulness of the medical attendant, or to the very means employed, in order to avert it.

STAGE OF EXCITEMENT.

In the stage of excitement, the symptoms most commonly occurring, point out the existence of irritation in the brain, and in the organs sympathetically

suffering with it; or excitement in the nervous system generally.

These symptoms indicate the propriety of what is termed the antiphlogistic regimen, as well as of remedies of a soothing nature.

I shall commence the consideration of these means, by some observations upon light and heat. So early as the time of Cælius Aurelianus, we find that attention was paid to this part of the subject; for we read that he caused his insane patients to be placed in apartments where the light was sombre, and the heat moderate. Either of these agents in excess, increases agitation; it is therefore, advisable to avoid exposing patients in the acute stage, to a glare of light, or to too great a degree of warmth. Sometimes much good is done, by placing patients, who are in a state of great excitement during the heat of the day, in a darkened and quiet room; because neither external objects, nor the stimuli of light and sound, exciting the senses, there is much less agitation.

This measure, however, is not advisable for patients in a state of depression. They ought, on the contrary, to be placed in a cheerful, well-lighted apartment; and indeed, in fine weather, they are better out of the house as much as possible.

The hair of the patient ought, in general, to be cut short; because much hair increases the heat of the head; and adds to that, which frequently is caused by the disease. When the hair is cut off, or the head is shaved, the application of such remedies as evaporating

lotions, leeches, blisters, &c., is facilitated. Some patients cannot endure any covering whatever upon the head; and such may be allowed to go uncovered.*

Another symptom connected with heat, is thirst; which is often very urgent in the insane. Some will call for drink almost incessantly, night and day; and it is a regulation, in some large hospitals, that an attendant shall go round amongst the patients in the night-time, for the purpose of attending to this, amongst other wants.

It is scarcely necessary to say, that in summer, the watery and acidulous fruits of the season may be given for this purpose, with safety and advantage. Wine is to be avoided, at all times; except when the disease has lasted long, or when it is accompanied by debility or exhaustion.

A remedy, which powerfully contributes to diminish general excitement, is warm bathing. It tends to allay the tension and agitation of the muscular system, and to soothe and to diminish increase of sensibility,—both of which are very prominent symptoms of the insane state. It likewise restores softness, and a comfortable sensation to the rough and dry skin occurring in certain cases of

* As a general rule, the heads of all insane persons should be kept cool. For this reason, permitting them to have their heads covered when indoors, is an injurious custom. In several public asylums, this bad habit prevails; when, at the same time, the patients are crowded into much too warm apartments. This is very inconsiderate; and will produce in many cerebral excitement, and sleepless nights, and consequent irritation to other patients.

partial insanity. Moreover, it is a most useful and necessary mode of preserving cleanliness. Every patient, upon admission into a well-regulated asylum, is put into a warm bath, for the purpose of washing him, and to afford the medical officer an opportunity of examining the whole body, to ascertain the state of the skin, and to observe whether there be hernia, or any other disease, the existence of which, it is important to know.

Where no counter-indication exists, the patients ought to be bathed at least once a week; and in some cases, much good is derived from bathing every day. Those who are much agitated, may be kept in the bath from a quarter of an hour to an hour or more,—the temperature being from 86° to 98° Farenheit.

Where a sense of suffocation is produced, or where there is a tendency to apoplexy, or hæmoptysis, the use of the warm bath is not to be persisted in.

The alimentary canal demands particular attention in insanity. Costiveness must be obviated; and the retention of hardened fæces prevented. As many patients do not readily give an account of their situation in this respect, it is the duty of persons who have the management of the insane, to ascertain every morning, by means of the attendants, whether their bowels have acted or not; as well as the nature of their motions: and the physician, when he is in doubt, ought to satisfy himself as to the state of the colon, whether there be retained fæces or not, by feeling the abdomen. Instances are on record, in which the intestines

have been allowed to become so much distended, that the transverse arch of the colon has given way.*

To prevent this costive state of the intestinal canal, something may be done by attention to diet, but in general it is necessary to have recourse to aperient medicines.

It is by a mild and simple medical treatment, combined with such moral management, as may be applicable to the particular case, that we are to manage the stage of excitement in insanity, so long as the progress may be considered regular, and no particular indications present themselves.

* Those who superintend the management of mad patients, cannot be too attentive to the state of their bowels. In my practice, I have witnessed very criminal neglect as to this point: I have seen evacuations which, from their volume and bulk, one would suppose had passed from an over-fed quadruped, instead of from a human subject. In one case, the intestines were so distended, that the transverse arch of the colon gave way.—*Crowther on Insanity, p.* 107.

SECTION II.

EMPIRICAL MEANS OF TREATMENT.

After having made trial of every means rationally indicated for the cure of insanity, without effect, empirical means have frequently been resorted to. Therefore, before I proceed to consider the deviations from the ordinary progress of the insane state, indicating peculiar remedies; I shall briefly notice those which have been used empirically, and first, of blood-letting.

Evacuations of blood, were frequently carried to an excessive degree, in the treatment of insanity; whether the patient were old or young, weak or strong, desponding or furious, bleeding used to be resorted to merely *because he was mad.**

* Not many years ago, the patients considered curable in Bethlehem Hospital, were regularly bled about the beginning of the month of June, and again at the end of July, or the beginning of August. One hundred and fifty of them have been bled at one time! Of more than two hundred patients treated in this way, Dr. Haslam, then apothecary of the hospital, observes, that there were only six whose blood could be termed sizy.

On the supposition that insanity is, in many cases, the consequence of increased vascular action, bleeding seems to promise relief; and when the pulse is full and strong, as in the commencement of Mania, and of Monomania, even when there is depression, the practice has sometimes been beneficial; but it must be determined by symptoms unequivocally indicating its abstraction,* for, although by taking away a large quantity, we may suspend the violence of the disorder, by exhaustion, it will reappear with unabated violence, as the bodily strength is restored.

We ought always to keep in mind, that the vascular system is not alone, nor indeed primarily implicated in the manifestation of insanity, and that there is also disorder of the nervous system, difficult indeed to explain, but not the less real. The certain effect of bleeding is to lower the physical strength, and in many cases, without alleviating the nervous or mental disorder. Even when the indications for its use are unequivocal, it has too often been carried to a mischievous extent. Platerus, for instance, is said to

* General bleeding is resorted to only in cases of a peculiar description. Mr. Tyerman says that "blood-letting has been rarely practiced, though sometimes with great efficacy, viz., in cases displaying plethora which threatens apoplexy, and when there is a congested state of the heart and great vessels." Dr. Bryan observes that "in Hoxton Asylum, in cases attended with vascular plethora in a marked degree, general depletion has been practised with the best effects." Lastly, Dr. Fox informs us, that "general blood-letting is only resorted to in those cases of Mania in which the physical condition of the patient, induces the apprehension of apoplexy, and *never* for the purpose of quieting a paroxysm of excitement."—*Report of the Commissioners of Lunacy*, 1847, *p.* 185.

have bled his patients once a week, and to have continued this practice in some cases for seventy weeks running.

This early stage, we have seen, is generally accompanied by derangement of the stomach and bowels, indicated by loss of appetite, loaded tongue, dry clammy mouth, and thirst. These symptoms gave rise to the opinion, that the deranged state of the digestive organs, was the cause of the insane state. The late Dr. Monro, spoke in high terms of the efficacy of emetics in relieving these symptoms, and mentions a case of melancholia cured by the administration of sixty-three emetics. Dr. Cox relates another, in which a cure followed the administration of a single emetic.

There can be no doubt that where a quantity of tough mucus is discharged, the symptoms above-mentioned may require the repetition of occasional gentle emetics. But, as I am of opinion that our chief indication, in the stage of excitement, ought to be to diminish the cerebral irritation, and, that when this is done, the other functions will resume their ordinary state; the extensive employment of these violent remedies, seems both hazardous and uncalled for.

The same may be said of violent purgatives, which have often been used empirically.

Irritating external applications of various kinds, as rubefacients, sinapisms, cauteries, the production of pustules, blisters, &c., have also been so employed.

These are likewise to be avoided in the early excited stage, of which we have hitherto been speaking.

Neither are cold baths, nor the large douche, as it is called, appropriate means at this time. The effects of the latter are so powerful, that the most furious maniacs, when subjected to it, are very soon quite subdued. The mode of administering the douche is by letting a large column of water fall on the head, from a greater or less height; sometimes by placing the patient in a chair, and pouring buckets of cold water on his head. It produces the sensation of extreme sinking, with pain at the pit of the stomach, nausea, and sometimes vomiting. The head sometimes becomes as cold as the water. Its effects are much more powerful, when the column of water falls on the forehead, than on the occiput. The douche acts both physically and morally, by producing a sudden mental emotion. It ought on no account to be employed when there is well-marked cerebral congestion, when the stomach is full, or when there is nausea; for in such cases, paralysis is very likely to be the consequence.

The bath of surprise, as it has been termed, or the sudden and unexpected immersion of the patient in cold water, is another of those very violent empirical means, that may have produced some benefit, but which, in many cases, may render the disease incurable by bringing on palsy. The employment of this, I believe, originated in accident.

These baths of surprise, are now little employed.

In Germany they were employed, as Guislain informs us, in the following manner. One half of a dark chamber was converted into a bath, and the patient being placed in this chamber, was left to himself. Many accidents must have happened in this way, and there seems to be few, if any, well established cures resulting from this practice.*

A course of mercury has been recommended by Drs. Ferriar, Hallaran, and others. An objection, however, may be urged against this remedy; namely, that it acts as an exciting cause where there is a disposition to insanity. It has been tried accompanied with low diet, and a state of quietness has been produced in some cases. But this may be ascribed to the effect of exhaustion, since the mental disease has, for the most part, re-appeared on the strength being restored.

When there is effusion of fluid within the cranium, the use of mercury may certainly tend to promote its absorption, and in this way, be of service; but this, however, is employing it upon a rational indication.

* Most probably, this mode of bathing acts as terror does on the sensorium. It might cause, as well as cure, insanity; for the blood is driven back from the capillary vessels with such sudden and intense force on the heart and large vessels, as sometimes to suspend their action altogether: or the reaction may be so great as to occasion death.

SECTION III.

DEVIATIONS FROM THE ORDINARY PROGRESS.

Having mentioned the remedies employed empirically, I shall now proceed to consider the deviations from what may be considered the regular course of the insane state; deviations which modify the disease, and which indicate rational and appropriate treatment. These may be comprehended under the heads of

Congestion.
Inflammation.
Increased sensibility.
Diminished sensibility.
Debility.

The state of congestion, and of inflammation, are intimately connected, and require a treatment, in some respects, similar; varying in degree, according as the head symptoms are more or less urgent. A

state of plethora sometimes occurs, which demands attention; but this, is rather a feature of the convalescent stage, or of Dementia, than of the excited stage, and shall be afterwards noticed.

CONGESTION.

The first of these deviations which I shall consider, is that of congestion in the blood-vessels of the brain. This state is attended with a sense of weight in the head,—particularly in the forehead, drowsiness, awaking with difficulty, and sleeping longer than usual, together with langour, indisposition for any exertion, and apparent weakness. This assemblage of symptoms, may be relieved by eating and drinking, the stimulus of which, increases the circulation of the blood, and the sense of weight is, perhaps, succeeded by headache, restlessness, and irritability. In a great proportion of the insane, a degree of congestion, is presumed to exist in the vessels of the brain, and, when the active state continues long after the commencement of the disease, we frequently find signs of an increased degree of this congestion, and, consequent irritation, marked by strong pulsation in the carotid arteries, often relatively stronger than that in the other arteries of the

body,—turgescence in the jugular veins,—redness of the eyes and face,—increased heat about the head, and little or no sleep. The patient, in other respects, may not exhibit any remarkable symptoms; he may be able to walk about, and take his food as usual; and, in some cases, the countenance may not be flushed, but pale. Still, we generally find an increased force of pulsation, in the carotid arteries.

This state of congestion is not peculiar to any of the forms of intellectual disorder. It may last a long time,—months, or even years; and until the disorder passes into Dementia.

The indication of cure is, to prevent the flow of blood in too great quantity, or with too great impulse, to the head; which keeps up and increases irritation in the brain. For this purpose, refrigerant applications are made use of, such as a handkerchief, a cap, or a sponge hollowed out, applied to the head, and kept moist with a mixture of cold water, and alcohol, or vinegar, &c. I have also found pounded ice, enclosed in a cap of India-rubber cloth, of great service. The affusion of cold water, when the patient is placed in a warm bath, is very useful.

Some prefer the hip-bath to the general warm bath, until there is reason to believe that the other means employed have lessened the fulness of the cerebral vessels; employing, at the same time, some of the cooling applications above-mentioned. These are so very grateful in this state, that some of the insane will plunge their head into cold water, or keep

it for a time under the spout of a pump, or fountain.

Cold applied to the head in any of these ways, or suffered to evaporate, diminishes arterial action, and lessens the sensibility; and, by giving tone to the vessels, renders them less liable to yield to the impulse of the blood.

With the view of lessening determination of blood to the head, the employment of active purgatives, as calomel, colocynth, jalap, gamboge, &c., is frequently of use, by exciting an irritation, and consequent increased secretion, in the bowels.

Emetic medicines so administered,—as, after the operation of vomiting, to keep up a moderate action on the bowels, have been recommended. Thus, a grain of tartrate of antimony, combined with three or four grains of calomel, repeated at intervals, may be employed. In some cases, in which there has been great torpor, very large doses have been given with good effect. In one case I had under my care, that of a young lady, a drachm of tartrate of antimony was taken in the course of a few days, at intervals, with little apparent effect. By many practitioners, tartar emetic is given with the sole view of diminishing turbulence, by the nausea it produces, and it is a favourite remedy, probably from its being so easily administered; its use, however, for this purpose alone, is to be adopted with great caution. Symptoms of fulness and increased action in the carotid and temporal arteries, should be lessened before administering emetics.

As the progress of this modification of the disease is often very slow, it will be necessary to persevere for some time in the above-mentioned means; and it may be of use, especially in young and robust subjects, to take away a little blood by the application of leeches, or cupping-glasses to the head, or back of the neck;* dry cupping has sometimes also been employed with benefit.† When leeches are applied to the head, or blood is abstracted by cupping, it is proper to keep in mind, that the vasular communication exists most freely at the inferior, and posterior part of the head.

The quantity of blood to be taken away, must be regulated by circumstances; the plethoric and the cachectic; the strong and the weak; difference of sex; constitutional varieties; the highly and moderately

* When there is terror, or prejudice against the operation of cupping, it cannot be performed with propriety,—then, leeches are the best substitute. A patient who, previously to her admission, under my care, had been twice cupped on the back of the head, informed me, on her subsequent recovery, that the operation gave a new turn to her delusions; and filled her with constant apprehensions of being followed by robbers and murderers, *who fired pistols into the back of her head.* When more blood is wanted than is taken by the leeches, cupping-glasses should be applied over the leech bites.

† Dry cupping is extremely useful in cases of congestion, where the patient is in such a state of debility or emaciation as to forbid the abstraction of the smallest quantity of blood. I have found very great advantage from this plan; as, by means of it, the blood is drawn away from the surcharged internal vessels, to those of the external; all of which, will be seen greatly distended from the operation: and it is there retained awhile, without being absolutely withdrawn from the circulation, to the relief of the brain.

excited, all demand consideration, and require different measures. One case may require the loss of sixteen or twenty,—another only ten, eight, or six ounces of blood, or even a smaller quantity.

Where much cerebral irritation, in consequence of congestion exists, blisters have been recommended, especially to the inside of the legs, &c. I have not, however, great faith in their efficacy.

The diet ought to be of a mild, and diluting character.

INFLAMMATION.

Another important deviation, from the ordinary progress of an attack of insanity, is produced by a sub-inflammatory state of the brain. A well-marked inflammation, a true phrenitis, is not what is here meant; for that, generally, is characterised by the delirium of acute diseases, and other violent symptoms. It is, however, a state of the blood-vessels approaching to it, and also, is in several respects, closely allied to that of congestion, last spoken of; and indeed, may be regarded as a more advanced stage of it, and, unless strongly marked, is with difficulty, to be distinguished from it.

This sub-inflammatory state, in addition to those symptoms, occurring in congestion of the vessels of the brain, is attended by pain, and feeling of tension

in the head; the eyes are suffused and glistening, and sometimes protruding; the expression indicates suffering, although the patient may not complain. Occasionally, a pustular eruption, or erythematous inflammation appears about the head or face; or a discharge takes place from behind the ears. The pulse, both at the wrist, and at the carotid arteries, is firm and hard; the thirst is considerable; the skin hot and dry; and the bowels are generally costive. All these symptoms, however, may not appear at the same time; and according as they are more or less urgent, our opinion of the case must be formed.

The curative indications, are nearly the same as in congestion, but, as the brain appears to be still more extensively affected, our endeavours to relieve the vessels of that organ, must be more vigorous. In some cases, it may be necessary, to abstract a moderate quantity of blood, by general blood-letting. This has been recommended to be taken from the jugular veins, or the temporal arteries; but, as the patients are generally violent and excited, this mode is very hazardous, and local bleeding is generally found to be safer, and in all other respects preferable. When the skin is dry, general warm bathing, the hip-bath, and stimulating feet-baths, are proper, as well as the cold application to the head, above-mentioned. Active purgatives are also to be employed, to excite the secretions from the bowels, and to lessen the diseased action in the head, by causing a derivation, as was directed under the head of congestion.

INCREASED SENSIBILITY.

The third deviation I shall notice, is a state of increased sensibility, or nervous irritability.

This state of increased sensibility is met with in delicate, irritable constitutions; of a melancholic temperament, or disposition. It differs from the state of increased sensibility which sometimes occurs at the commencement of insanity, and which is marked by increased vivacity, and susceptibility of impressions. That now under consideration, occurs in the progress of the disorder. No signs of either congestion, or of inflammation of the brain, appear; and patients suffering under it are, in many instances, pale and emaciated.

This irritable (or, as it is termed), nervous state, is most commonly met with in Monomania, with propensity to suicide. Those labouring under it are, in general, extremely sensible to the action of cold, and of external stimuli; blisters, in particular, excite severe pain; the slightest disagreeable impression is acutely felt, exciting terror, and sometimes melancholy, and great depression; the patients are very restless, and are uneasy in every position; their sleep

is alsō disturbed. Every occurrence excites pain and suffering. The alimentary canal is, for the most part, in a deranged state, marked by obstinate costiveness, —sometimes by heat and pain in the abdomen.

In addition to the means recommended in the stage of excitement in the regular form of the disease, active purging, combined with sedative medicines, and nourishing diet, are recommended; the warm bath being at the same time employed, to moderate the too violent effects of the local action of the purgatives, and to diminish the increased sensibility. The former part of this plan, consituted nearly the whole of the medical treatment of the ancients in Melancholia. Their patients were sent to take hellebore at Anticyra, an island in the Archipelago, near Oeta, in Thessaly, famous for the quantity of black hellebore it produced; so that "naviget Anticyram," became a proverb. The circumstances which accompanied the administration of this remedy, the travelling, the amusements, and the confidence with which the patient was inspired by the renown of the place, no doubt contributed to promote the success of the advice.

In the modification of the disease now under consideration, active purgatives are indicated for the purpose of exciting an irritation in the intestines, and removing accumulations of fæces, and diseased secretions. Croton oil is frequently employed in Bethlehem Hospital very successfully, and without bad effects, in doses from one to four or even six

drops, on a little sugar; oil of turpentine is also employed.*

The Melampodium, or black hellebore, has been brought forward by Dr. Dubuisson of Paris, who states its effects to be purgative and sedative; and that he has very successfully employed it in the cure of Hypochondriasis and of Monomania with depression. Other practitioners however, have not met with the same success as he affirms he has done.

With a veiw to allay the general and local uneasi-

* The determined resistance often met with to the taking of any medicines or of submitting to any means of relieving the bowels, renders these cases very difficult to manage. It is of importance then to have recourse to such purgatives, as from their bulk and insipidity, can be best disguised. A dose of calomel, mixed with a grain or two of tartar emetic, to give it activity, is a convenient form. I have often succeeded, by putting this between two pieces of bread and butter, in getting it down. The croton oil may also sometimes be administered, rubbed down with sugar, and mixed with a little beer. The elaterium, in point of bulk, and certainly of effect, is an excellent medicine, but unfortuately it is so nauseous, that it cannot be disguised, except in a pill, and that is a form, if refused, very difficult to make them swallow.—*Burrows. Op. cit., p.* 635.

"Gin," says Dr. Browne, in his report of the Crichton Asylum for 1847, "is a good diuretic in cases of chronic dropsy; and is always acceptable, even when combined with others. Lozenges are in constant demand; they may be called the current coin—the peace-offerings of such an establishment. Under this form, calomel, ipecacuan, magnesia, morphia, gelatin, and nitrate of potass, may be given in small doses; castor oil may be converted into a custard; croton oil may escape notice in the centre of a slice of bread; calomel may be spread with the butter; scammony is not distinguished from pepper in broth; and gamboge emulates the colour of eggs in pudding. The appetite may be pampered, and a favourite dish may be used, as the vehicle of what, under other circumstances, would inevitably be rejected. Porter may be resorted to as a tonic bitter and astringent, and the solvent of colocynth, aloes, quassia, sarsaparilla, or catechu."

ness, anodyne and narcoctic medicines may be given. Of these preparations of opium, of hyoscyamus, digitalis, camphor, and musk, have been chiefly employed. Hydrocyanic acid, belladonna, aconitum, stramonium, lettuce and hops, have also been recommended.*

It is difficult to ascertain previously, the cases in which advantage may be derived from opium ;† this, we cannot always do, without making a trial. In the early stage, where moral causes, such as anxiety and vexation, have led to derangement, opium has often

* Some narcotics operate directly upon the functions of the brain, independently of the circulation,—others, through the circulation. Those which are used as soporifics in cases of Mania, such as aconite, belong to the former class; lettuce, henbane, the deadly nightshade, and hemlock, to the latter. Opium and camphor, Dr. Paris supposes, act through both media. This double property of opium, may account for its exercising different effects, according to the mode of its being administered. If given in Mania, through the medium of the stomach, by its immediate action on the nerves, it exasperates; if administered by injection, into the rectum, even in small quantities, it is absorbed, and conveyed through the circulating medium, soothing, and inducing sleep; and more certainly relieving delirium.—*Burrows on Insanity, p.* 613.

† "The state of the vascular system," as M. Guislain has well observed, "is a principal guide in determining as to the propriety of administering opium in insanity. In cases of high excitement, strong full pulse, heat of skin, and fulness of vessels in the head, opium is injurious; it tends to increase the symptoms, and aggravate the severity of the disease. It is more likely to be of service in delicate and attenuated persons, of feeble constitution, pale, cold, relaxed skin—frequent, small, weak pulse. If the disease has been of long duration,—if the circulation has been losing its force and activity from day to day,—if the attack of mental derangement has not been a sequel of suppressed cutaneous eruption, or suppressed hæmorrhage, causes tending in a high degree to produce an inflammatory state of the brain,—if there are only nervous symptoms to contend with; I should have no objection in having recourse to opium."—*Guislain Traite sur l'Alienation Mentale, tom.* 1, *p.* 350.

proved of great service. It very seldom, however, procures sleep during a violent paroxysm, unless its administration is unceasingly persevered in; and, where it has for a short time produced stupor,—the patient, after its operation is over, is in a state of increased violence, There are cases on record, however, in which, the termination of the stupor, produced by a large dose, has been succeeded by a restoration of reason. Van Swieten mentions the case of a girl, in a state of Mania, who, by mistake, was allowed to swallow a scruple of opium mixed with vinegar; and on recovering from sleep, was restored to reason. Mr. Allen, of Edinburgh, also, relates an instance, in which, after copious depletion, and the employment of mercurial purgatives, two grains of opium, with ten grains of the extract of hyoscyamus, repeated every four hours for four times, produced a state of quiet, and subsequent recovery.

Last year, a case occurred in Bethlehem Hospital, of a man, to whom, in a paroxysm of violent Mania, a drachm of laudanum, six grains of the acetate of morphia, and six grains of the extract of hyoscyamus, had been previously given. On being brought into the hospital, he was in a state of profound stupor, and apprehensions were entertained of his death. By the means employed, stimulants, blistering, and enemata, he was roused from the state of stupor, and speedily recovered.

Dr. Galloni, physician to the hospital for the insane,

at Modena, made a very long trial of opium, in a case of Mania of some years' standing, which had been treated by evacuations in the commencement of the disorder, and afterwards by hyoscyamus and digitalis. He began by giving one grain of opium four times a day, gradually increasing it until the patient took ten grains four times a day, when some abatement of the fury of the patient took place; but symptoms of dropsy appearing, the opium was discontinued for a time. It was again given in the same way, gradually increasing the quantity, until the large dose of one hundred and seventy grains was taken daily; when the state of furious excitement, which had continued until then, began to abate; greater coherence of ideas appeared, and he was able to employ himself a little in drawing. The opium was left off by degrees, daily diminishing the dose, and a complete recovery took place.

The cases in which opium is contra-indicated, are those in which there is great vascular action, congestion of the cerebral vessels; and habitual costiveness.

The largest dose of morphia I have found it necessary to use in the course of the twenty-four hours, has been seven grains of the hydro-chlorate.

Digitalis has been much commended, particularly where there is a quick pulse, without any symptoms of pyrexia, and where the system has been reduced by depletion and by purgatives. It should be commenced in small doses, and continued until

the pulse is reduced, or nausea, vertigo, or dilated pupils produced,—symptoms which, on the contrary, indicate the use of cordials, and diffusible stimuli.

Dr. Cox attributes its efficacy to the nausea it excites. Dr. Hallaran's mode of giving it, is to premise purgatives, and mix it in small beer; beginning with five or six drops of the tincture, administered three times a day. A very good form of administration is—

℞. Tincture of digitalis,
Tincture of squills, of each ℥ss.
Antimonial wine,
Nitric spirits of æther, of each ℥i.

A teaspoonful and upwards, for a dose.

Hyoscyamus has been much employed of late years, and in general without any bad consequences. This medicine is less powerful than opium, but as it does not retard the action of the bowels, it is less likely to occasion cerebral congestion. It is frequently combined with camphor, which is another sedative much employed, and well entitled to attention. It is employed alone, and in combination with opium, or hyoscyamus; in doses of from half a scruple to a scruple or more, it has been very beneficial. In a case of strong propensity to unnatural vice, I gave fifteen grains, three times a day, for some weeks; and, under this treatment, the disorder subsided. It is usually given in the form of camphor mixture.

Lettuce and hops, have both also, been employed,—

both are slightly anodyne, in their action. The latter was brought into notice, from having been employed by the late Dr. Willis, in the case of George III., who had a pillow stuffed with hops.

With regard to the quantity of all these medicines, to be given in cases of insanity, it may be observed, that although very large doses of the most powerful medicines, are frequently borne with impunity by the insane, it is prudent to begin with the usual quantity, which may be increased, according to the effect produced.*

With regard to the just appreciation of the curative powers of medicines in insanity, I need not tell you, that more than usual discrimination is required; for it is well known, that some cases are cured, or more properly speaking, recover, by merely withdrawing the exciting causes; as for instance, cases produced by intoxication.

Chloroform, has lately been tried in a few cases, in Bethlehem Hospital, with a view to allay maniacal excitement. It was found to produce the same physiological effects upon the insane, as upon the sane; and, that the most violent and excited, were put into a state of calm and profound repose, by its influence. As a curative agent, I have found no benefit resulting

* Dr. Paris gives a caution, which is of the utmost importance to us here,—"not to allow the apparently inactive state of the stomach to induce us, inconsiderately, to augment the dose of an emetic: for, although the stomach may be unable to void its contents by vomiting, it may nevertheless retain its sensibility; and be therefore liable to inflammation."—*Pharmacologia, 9th Edit., p.* 199.

from its use; since, in the cases in which it was tried, the patients reverted to their former state, as soon as anæsthenic effect had passed away.*

In the modification of insanity, in which increased sensibility is the prominent feature, tonic medicines are indicated, and in some cases antispasmodics,—as the fœtid gums, and valerian. The ammoniated tincture of valerian, is frequently used in Bethlehem Hospital.

External stimulant applications increase the state of irritability, and are, therefore, to be avoided.

When the mode of treatment above noticed, is successful, the excessive sensibility is diminished; the countenance becomes clearer, and the skin resumes its healthy colour. The following is a case of this modification.

A female, about forty years old, was seized with Monomania with depression, and propensity to suicide, in consequence of disappointment. During the first three months, the means recommended in the excited, or active state of the disease, were employed, —but with little effect; she became emaciated, her

* Dr. Skae, in his report of the Edinburgh Asylum for last year, says:—"I have found it extremely serviceable for many minor purposes, such as the administration of food by means of the stomach-pump, and of enemata, and in the performance of various necessary operations. One caveat with regard to its employment for the purposes of forced alimentation may be given, namely, that in all probability the loss of sensation which accompanies its use, might greatly mask the usual symptoms which would indicate the passage of the œsophagus tube into the air passages; and that without great caution, a fatal accident might happen."

features were contracted, and her complexion sallow; her bowels were obstinately costive, and she complained of pain in them, and in her head; her sensibility of cold, and of the slightest uneasiness, or inconvenience was extreme. She was continually expressing her fears of never recovering. The purgative system, with some of the above-mentioned anodynes, were then tried; a moderate purgative was given in the morning, and an anodyne at night. By persevering in this plan, a cure was effected in about two months.

DIMINISHED SENSIBILITY.

The fourth well-marked deviation, from the ordinary appearance of insanity is, diminished sensibility, or stupor; the opposite state of the last described deviation, and which, in general, characterises what is termed, Acute Dementia; although, it is also met with, where other forms of insanity prevail.

When the disease is violent, and continues undiminished after four or five months duration, this state of nervous insensibility is an almost certain sign of its becoming incurable. Unless in cases where there is reason to suspect effusion on the brain, or perhaps, a state of chronic congestion, or fulness of the cerebral

blood-vessels to a great extent, we are much in the dark as to the cause of this insensibility.

The curative means, generally employed, are those likely to cause strong excitement, and counter-irritation, in the hope of changing the torpid condition of the intellectual organs. Such are—

External irritants, applied near the seat of the disease, in particular, at the nape of the neck, and back part of the head. Blisters, are best applied in the morning, so that their action may be over before night; care must be taken, that the patient does not remove them, for some madmen have taken them off, and have actually swallowed them.* To prevent such an occurrence, the application of the acetum cantharidis is well-adapted. Friction with tartrate of antimony ointment, is also very useful in some cases.† A seton inserted in the nape of the

* Eating poultices is not an uncommon trick amongst dirty patients. A patient in the Norfolk Asylum, who was much troubled with sore legs, was in the habit of doing this filthy trick. One day, after speaking to him about the disgusting nature of the propensity, he coolly turned round, and told me "he only ate the *clean bits!*"

† Friction with an unguent composed of this preparation, on the scalp, or inside the arms, till distinct pustules are produced, has been highly recommended in the cure of insanity arising from gastric affections. The success of this treatment had been variously reported, before Dr. Jenner so forcibly recommended it; his formula is:—

R.	Antimon. Tartar. (subtil pulv.)	3 ii.
	Unguent. Cetacei	3 ix.
	Sacchari albi	3 i.
	Hydr. sulph. rub.	Grs. v.

M. fiat unguentum.

Letter on Artificial Eruptions, 1822.

neck, may also be tried. This, I believe, by the way, is considered by many to be the best prophylactic after a fit of insanity.*

The application of moxa is sometimes made, and even that of the actual cautery; principally, I believe, in France; and it is said, with the effect, in some cases, of rousing the patient from this state of stupor. The sensation of a stimulating fluid pervading the body, is described as an effect of the application of moxa. If signs of febrile excitement follow its application, and if the countenance, hitherto inanimated, exhibit an expression of suffering, we are encouraged to repeat the application.

The actual cautery was applied on the head, in more than one hundred cases, by Dr. Esquirol, in which, no benefit resulted. In cases where delusions of hearing exist, the application of caustic potass behind the ears, has been recommended, by the younger Pinel, and he says, he has cured several cases by this means. I have tried it in some instances, but without obtaining any beneficial result.

Emetics, repeated at the intervals of several days, have been tried for a time; and, if no signs of congestion in the blood-vessels of the head forbid, they may be of service. The douche has, in some cases, ap-

* "I think it probable that where they have been reported to have effected a cure, the malady has originated in metastasis, by the retrocession of some cutaneous eruption, or transfer of a morbid action in a remote part to the brain, or from the suppression of some long-continued or periodical discharge from the hæmorrhoidal vessels, gleet, or leucorrhœa. Drains in such cases are decidedly useful."—*Burrows. Op. cit., p.* 621.

peared to rouse the mental energy, and I have succeeded in curing several cases, by means of it, at Bethlehem Hospital. In many cases, however, the effect is transitory, sometimes lasting no longer than during its application.

On the supposition that the cause of the nervous sensibility, depends upon the effusion of fluid on the brain, mercury has been recommended, to excite the absorbents to act, and in some cases, with success. Electricity and galvanism, have also been recommended, but, so far as I know, with little or no effect.

DEBILITY.

Another deviation from the ordinary progress of insanity, is that in which great debility prevails. This state, is accompanied by paleness and emaciation, by a small, weak, and sometimes, frequent pulse. There may, at the same time, nevertheless, exist violent delirium, as in puerperal cases; more commonly, these symptoms are accompanied by stupidity, or by loquacious Dementia. Debility sometimes precedes the insane state, as in cases where want of sufficient food, has had a share in bringing on the disease. At other times, it is the consequence of bad management,—the abuse of blood-letting,—excessive purging, —or other debilitating remedies; and also, the effect

of obstinate refusal of food,—confinement in damp and close situations,—and of excesssive masturbation.

Warm baths, if used at all, further than for the purpose of cleanliness, ought to be of short duration, on account of the debility existing.

Patients exhausted by profuse blood-letting, remain for long time pale and feeble. Unable or unwilling to take any exercise, they are restored to bodily strength with difficulty; and in many instances, the mind never regains its former energy. The same may be said of those patients who have been long neglected, before proper treatment has been adopted.

It sometimes happens that the insane state is kept up by means injudiciously adopted for its removal,—for instance, when a system of evacuation is persisted in, where the intellectual disorder is the consequence of the exhaustion. Cases have often occurred in which the disorder has gradually disappeared, as the vessels became filled, and the bodily health and strength has been restored.

Masturbation is a powerful cause of this state of debility. This vicious practice is indulged in by insane women, as well as men; and is extremely difficult to correct. Those who addict themselves to it lose their strength, become silent, shun the society of others, and would for the most part lie in bed. They are insensible to every representation as to the shame, and bad consequences of the habit. It requires the utmost vigilance in attendants to prevent its indulgence. Patients who addict themselves

to this practice, ought never to be left alone, especially when obeying the calls to stool or urine, nor allowed to be with accomplices; and the hands at night should be secured, so as to prevent the accomplishment of the vice while in bed. The utmost caution is sometimes, however, unsuccessful. When carried to excess, as some females contrive to do, the constitution becomes enfeebled—emaciation takes place—they sink into a state of despondency and fatuity, and die with symptoms of hectic fever.

Mild, spare diet, and cooling medicines, are to be employed; and cold lotions may be tried, when irritation of the genital organs is connected with this distressing variety.

SECTION IV.

PUERPERAL INSANITY.

Puerperal insanity, is a variety of the insane state, deserving a separate notice, both on account of the frequency of its occurrence, as well as the difficulty in which many practitioners find themselves placed, when cases of this kind occur in their practice, without their having paid any particular attention to the class of diseases to which it belongs.

The natural determination of blood to the uterus, during pregnancy, having ceased, females are more liable than at other periods, to irregularity in the distribution of that fluid, and the balance of the circulation being disturbed, the mind becomes disordered from any exciting cause; such as agitation, want of sleep, noise, cold, &c. Exposure to these

causes, before the determination of blood to the breasts is made, or when the secretion of milk is scanty, is apt to lead to excitement in the nervous system; in some, to produce hysterical symptoms, and in others, to lead to delirium, febrile or insane, according to the predisposition of the patient. In many cases, the first symptom is a diminution, or suppression of the milk, followed by head-ache, flushed countenance, and want of sleep. There is frequently a wild, and glistening appearance in the eyes, which rapidly wander from one object to another, and the actions are hurried. In other cases, the eyes, on the approach of the delirium, appear half-closed, and the countenance expresses vacancy or indifference.

In some cases, the delirium is of a mild description, but more frequently, it is violent, and may require the patient to be placed under some degree of personal restraint. In such cases, Dr. Hamilton recommends long stockings, with a bandage fixing the legs together, as particularly serviceable.

In the treatment of puerperal insanity, we must keep in mind, that the situation of a woman, recently delivered, is that of depletion; and, symptoms of nervous excitement, are not to be mistaken for those of inflammation. In general, we find that exciting increased secretion, from the bowels and from the skin, is attended with decidedly good effects, by supplying the place of those secretions, lochial or lacteal, which may have been suspended.

With this view, the treatment ought to consist very much in the employment of purgatives and diaphoretics; but, as the bowels of many delicate women in this state, are very irritable, gentle purgatives are to be preferred to drastic ones. Warm bathing is also very useful. Blisters applied to the head are hurtful; much benefit, however, has been derived from their use, applied to the nape of the neck, in Bethlehem Hospital, as also from the insertion of an issue in the neck or arm, to supply, in a measure, the place of the suppressed natural determination.

When cerebral excitement, manifested by flushed face, heat of head, and throbbing of the arteries, has been diminished by local abstraction of blood, if necessary; by cold applications to the head and by purgatives,—opiates may be tried, should the restlessness continue. Amongst these, the preparations of morphia appear to be the most beneficial; hyoscyamus and camphor, are likewise employed with good effect.

When the breasts appear swelled and tense, they demand the same attention as in the sane state; as do likewise uterine or other symptoms. The child, in the early period should be weaned, and the breasts regularly drawn, so long as the secretion of milk is not suspended.

If the insane state continue after the active stage, in spite of remedies employed, the indications then presenting themselves, are to be tried as in other

cases of the disease. The moral treatment is the same as in insanity from other causes.

Removal from home, in cases of recent delivery, may not be practicable; and, where not required by the features of the case, is hardly advisable.

SECTION V.

PERIOD OF CONVALESCENCE.

I shall now consider the treatment of the insane state when it is declining, and approaching to convalescence; together with that which is appropriate in the states of Dementia, Imbecility, and Idiocy.

DECLINE OF THE DISORDER.

We find the symptoms in this stage of the disorder frequently differing considerably from those of the preceding stage; for instance, a patient who has been very irritable, may now have very little sensibility, or *vice versa*. Increased irritability, is particu-

larly the case in convalescence from Mania; we are therefore to be regulated in our mode of treatment, more by the actual condition of the patient, than by the original form of the disorder. The decline and convalescence may be impeded in its progress by various circumstances, such as debility, irritability, want of sleep, plethora,—and certain local affections, as head-ache, suppressed menses, costiveness, &c.

With respect to the first of these, debility, it may be observed, that the state of increased action is often succeeded by depression and debility; such patients become very timid,—their ideas, though sane, are few, and feebly expressed,—they answer tardily, and their speech is sometimes embarrassed,—they have little appetite,—their digestion is not well performed, —their countenance is pale; sometimes they have œdematous swellings in the legs and feet, or their limbs are apt to swell on the least exercise; they are averse to motion and to society, and sometimes sleep much.

The remedies indicated in this state, are tonics and stimulants, such as quinine, steel, and bitters, the moderate use of wine, together with country air, the shower-bath, and sea-bathing. If the embarrassment of speech be so considerable as to lead to a suspicion of a paralytic tendency, a blister to the nape of the neck, or the insertion of a seton, will be proper.

An irritable state, with disturbed sleep, is not an uncommon occurrence in convalescence. Long after the delirium has subsided, harrassing ideas continue

to intrude themselves, without the consent of the will, and the patient is disturbed by uneasy dreams. Want of sleep appears to be more wearing out at this time than in the earlier stages of the disorder, when the mind, being in a passive state, is capable of bearing long watching and fatigue. In this state, anodynes, as preparations of opium, hyoscyamus, camphor, &c., are particularly useful. Warm bathing too, is indicated, and as much exercise as the patient can easily bear; so as to induce moderate fatigue.

I have next to notice a state of plethora; which occurs in convalescence. When this is the case, diet of a less nourishing description, exercise, and mild laxatives are indicated. We ought to avoid taking away blood, unless the plethora rapidly increases; or the symptoms depending upon it are urgent. Our attention also should be directed to the suppressed state of the menstrual discharge, since its suppression increases any tendency there may be to general or to cerebral plethora, or to head-ache. We must also ascertain the period of its expected appearance, and employ appropriate remedies about that time; such as aloetic purgatives, the hip-bath, pediluvia, &c. The compound decoction of aloes with camphor-mixture is a remedy which has been employed with much success in Bethlehem Hospital.

Head-ache is another symptom which sometimes retards the progress of convalescence. When slight, laxatives and anti-spasmodics, the pediluvium, and tranquillity, will in general be found sufficient to re-

lieve it. If obstinate, more active remedies are necessary; such as the repeated application of a small number of leeches; sometimes cupping, and also blisters behind the ears, or on the nape of the neck.

Costiveness, is of course, to be relieved by the usual means already mentioned.

PROPHYLACTIC TREATMENT.

Relapses are to be guarded against, by avoiding the causes likely to renew the disease, and by improving the general health of the patient, so as to enable him to withstand their operation, when unavoidably exposed to them.

Great attention ought to be paid to the slightest warning about the head, especially if the sensations are described as similar to those which preceded the former attack, such as sense of weight, or of pain.

Warm bathing may be tried, as also purgatives, and the insertion of an issue in the arm. If signs of congestion in the head, are urgent, we must abstract blood by leeches, or by cupping; and, in some cases, where a suppressed discharge is conjoined, blood may be taken from the arm. When a relapse appears to be immediately threatened, the best course probably is, to administer a strong pur-

gative, with an emetic, thereby producing a powerful derivation to the bowels, together with the addition of such means, as other circumstances of the particular case may demand. We can, however, seldom succeed in arresting its progress.

DEMENTIA.

This form of insanity, is in general accompanied by debility, and, not unfrequently by a chronic inflammatory stage. When Dementia is accompanied by debility and exhaustion, the patient is as might be expected, pale, feeble, and indolent; the pulsation, in the carotid arteries, is slow and soft, the pupils are in some cases, dilated; and in many, there is a vacant stare.

The irritable state, again, which sometimes accompanies Dementia, appears to be the result of chronic inflammatory action, inferred from the appearances observed on dissection. The patient, although he may be quiet, sleeps but little; the heat increases towards evening, with flushing of the face; the pulsation in the carotid arteries is rather hard, and frequent, with other marks of chronic inflammatory action.

The former variety is by much the most frequent, and the treatment to be recommended, consists in

a generous diet, with moderate exercise in the open air; in friction of the body, in the use of tonics or stimulants, and the shower-bath. External stimulating applications, have also been recommended.

In the latter variety, besides employing counter-irritation, we are to excite the action of the intestines by purgatives, and promote perspiration. In some cases of this description, it may be necessary to abstract blood, particularly during hot weather.

It must be confessed, that very little hope is to be indulged, in cases of Dementia occurring after insanity has existed for a considerable time; still, as we risk nothing in rational attempts to relieve it, we ought not absolutely to despair, and leave the patient to his fate.

The occurrence of acute diseases, and of Mania, has occasionally been the means of cure, in this disorder. And it is worthy of remark, that before the close of life, a person who has long been in a state of mental alienation, a gleam of reason has sometimes appeared, and he has expressed himself in a rational and resigned manner.*

* Nothing can be more beautiful than the description given by Sir Walter Scott in the "Chronicles of the Canongate," of a case of this nature.

IMBECILITY.

With respect to the treatment of the different varieties of Imbecility, we are to inquire minutely how far they may be connected with physical causes, which, if possible, are to be remedied by the employment of whatever may tend to invigorate the general health, as regular exercise, temperate diet, the shower-bath, and other forms of bathing, with the use of tonic medicines. For invigorating the understanding, we are to have recourse to intellectual and moral instruction. A judicious and well-directed education may greatly improve the feeble faculties, in conducting which, a great deal will depend upon the improvement of the power of attention. Very often some faculty or capacity is more susceptible of improvement than the others, and this will point out the particular line to which the application of the individual may be most successfully directed, since the different employments of men require very different degrees of mental capacity. For instance, imitative trades require much less than professions, or occupations in which invention is necessary.

Whilst upon the subject of the education of the imbecile, I may observe, that medical men are sometimes

consulted by the parents of children, in whom there is a hereditary tendency to this state. The character of these children may be either impetuous, or it may be timid, and certain animal propensities may be more or less predominant. A different mode of education, it is plain, must be suggested, according to the prevailing character of the individual; for some, a degree of restraint, for others, encouragement, modified according to the circumstances of the case.

As to the treatment of general imbecility of mind, or Idiocy, with a view to rouse the power of attention, M. Itard endeavours to act upon the appetites and the affections. He rewards the attempts of the imbecile to exert attention, by giving them such food as they may be fond of; and he acts upon their affections by exciting fear, by pretended anger.

By a mode of education founded on these principles, the imbecile may frequently be induced to employ themselves usefully, and even to become tolerable mechanics.

SECTION VI.

I shall conclude this subject, the medical treatment of the insane, by a few general observations on certain points not included, or slightly touched upon, under the preceding heads; and first, of the necessity of attention to

CLEANLINESS AND GOOD AIR.

Many of the insane are dirty and slovenly in their dress and habits; they pay little attention to personal appearance; allow their beards and nails to grow, their hair to be uncombed, and their skin to be dirty. Every one is satisfied, that cleanliness is conducive to health; and it is equally true, though not so obvious, that it also tends to the preservation of order, and good conduct. Sir John Pringle, talking of ships'

crews, says, "such as were made more cleanly became more sober, more orderly, and more attentive to duty."

The difficulty of keeping a number of insane persons, especially those in a state of Dementia, tolerably clean, is great; but may be much lessened, by proper classification,—the dirty patients being kept in a separate division, and cleaned and washed every morning, and all excrementitious matters carefully removed, as soon as possible.

In violent paroxysms, the fæces and urine, are passed without consciousness; and, when neglected, a habit of inattention to these calls is formed, after the active stage of the disease has subsided; and it then becomes very difficult to remove. So lost, indeed, are some of these poor creatures, to all sense of propriety, that they have a particular propensity to smear themselves over with their excrements. Some will even eat them, although, other food be within their reach.

Over-distension of the intestines and urinary bladder, when there is great insensibility, likewise weakens these organs, and brings on incontinence of urine, and inability to retain the fæces.

Piles are a frequent consequence of neglected bowels; and occasionally occur in insane persons. The state of the rectum should also be attended to, as well as that of the bladder; for they will sometimes retain their urine for a long time,—a circumstance not to be lost sight of. Dr. Ferriar mentions

a case,—that of an elderly gentleman in a state of depression, who persevered in retaining his urine during three days and two nights, although evidently with great pain and difficulty. A dose of tartar emetic was exhibited, which, producing nausea and vomiting, the bladder was emptied at the same time. This propensity to retain urine, requires attention while removing a patient from one place to another; for, if not urged to attend to the proper calls of nature, some are apt to retain their water so long as to occasion paralysis, or inflammation of the bladder ;* as occurred in a gentleman in a state of Dementia, who was confided to the care of two domestics to bring him to town from a distance. He unfortunately died on the way, in consequence of rupture of the bladder.

In some establishments, those patients who evacuate their fæces without regard to time or place, are seated on a proper apparatus every morning, and kept there half-an-hour.

With regard to the subject of water-closets, I would

* A patient of mine, an old man in a state of chronic Mania, was in the habit of retaining his water for a long time together, in consequence of some delusions he was labouring under; so that the bladder gradually lost its tone and nervous sensibility. After having remained for three days and two nights in this state, the attendant drew my attention to the distended state of the bladder, and I now learnt for the first time that this had not been an unusual state for him to be in,—the retention of urine being ascribed to a stricture. On examination, I found that in the present instance, at least, the retention of urine did not proceed from stricture; but merely from temporary paralysis of the bladder. By regular attention, and proper remedies, the bladder in a short time recovered its proper tone and sensibility.

observe, that too much attention cannot be paid to keeping them clean, and the air pure. In almost every instance where bad smells exist, their source may be traced to some deficiency in this respect. In some asylums, they have for this reason been constructed outside the buildings altogether. Disadvantages, however, attend this plan, as they are thus necessarily removed from the superintendence of the attendants. The best plan, perhaps, is to have them constructed on the principle that on opening and shutting the door, a cock is made to turn, by which means a sufficient quantity of water is allowed to escape for washing away all impurities.

As the door will probably be opened much more frequently than necessary, an abundant supply of water is of course requisite. All other plans, in which the patients or attendants are required to turn on water, will never be properly carried out.

WARMING.

In all the county asylums which have been built of late years, no expense has been spared to preserve the air pure, and keep it of a wholesome degree of warmth, by a sufficient number of fire-places, and by tubes filled with hot water or with steam. This is the more necessary, as cold is injurious in proportion to the dimi-

nished sensibility of the insane, many of whom appear not to feel it, and expose themselves half-naked to all the rigor of winter. Hence has arisen the idea that the insane could resist almost any degree of cold,—a very mistaken and pernicious notion, for in severe winters, where great attention has not been paid to the warmth of the apartments, the feet are sometimes frost-bitten, and contractions of the limbs take place from lying in bed with their feet drawn up.*

DIET.

With regard to the diet of the insane, I would observe, that this should be plain and wholesome. Stimulating food or drink is highly injurious where there is much excitement; while under light diet, with a moderate allowance of animal food, the easily excited and turbulent very often become tranquil, and the depressed gain strength of mind.

The diet of the insane, however, must be regulated by circumstances. The same diet will not be applicable to all patients in a large asylum. It must be modified according to the state of the disease of the

* The much greater mortality in winter and the colder months of the year, fully prove the truth of this assertion.

constitution, and the previous habits of the patient,—if the curative plan be reducing, the diet must be correspondent; if tonic, the same.

In some cases, wine in moderation may be necessary; and, if the patient have a strong craving for food, which is the case with some, he may be allowed bread at any time. But a system of regularity, of fixed periods for meals, &c., should be invariably observed; otherwise, some would stuff themselves so much, as to bring on vomiting and indigestion.

But whilst on the one hand the error of a too stimulating diet should be avoided, that of a too scanty one should be equally so on the other. As a general rule, the diet of the ordinary inmates of pauper asylums, should be somewhat more nutritious and liberal, than they usually, or at least frequently, meet with in their own cottages. The mere change, indeed, on admission into a pauper asylum, from a scanty to a liberal diet, has, in many cases, appeared to effect a recovery, without the employment of any more special means. Still, we must recollect, that in case of recovery, the patient has to return to his old habits,—and, as regards the diet of asylums, that which is good in quality, and sufficient in quantity, and not materially different in kind, from that to which the patients have been accustomed, would appear to be more desirable, than one materially different, even though more nutritious.

Before leaving this subject, I cannot do better than

illustrate the mischievous effects which may attend a too scanty or improper diet, than by the following quotation from Pinel:—

"I leave to the historian of the revolution," says he, "to paint in its proper and odious colours that most barbarous and tyrannical measure which deprived infirmaries and hospitals of their valuable endowments, and abandoned the diseased and the infirm to all the vicissitudes of public fortune. It is sufficient for my present purpose to mention a few facts of which I have been myself an eye-witness, and of which the recollection cannot but be painful to a man of any sensibility.

To meet the well-ascertained wants of the Hospital of Bicêtre, it was determined by the Constituent Assembly to increase the allowance of bread to one kilogramme daily. For the two succeeding years, I witnessed with great satisfaction the operation of the salutary measure. I then ceased to be physician to the hospital. But during one of my friendly visits which I occasionally paid to my old insane acquaintances, I learnt that the usual allowance of bread, had been reduced to seven hectogrammes and a half per day.* A great many of the old convalescents, had relapsed into a state of raving madness; and were complaining loudly, and bitterly, that they were about to be starved to death. But this system of retrenchment, was afterwards car-

* A hectogramme is equal to 3oz. 4dwts. 8·40grs. troy.

ried to still greater lengths; the allowance being gradually reduced to five, four, three, and even two hectogrammes of bread, with a small allowance of biscuit; which frequently was far from being of good quality. The consequences were such as could not have escaped attention.

Upon inquiring into the state of the institution, it appeared, that in the short space of two months, the total number of deaths, in the department for lunatics alone, had been twenty-nine; while, during the whole of a preceding year, twenty-seven only had died.

A similar, but still more deplorable result, was obtained from a survey of the same kind, which was made of the state of the Salpêtriére. In the months of October, there were no fewer than fifty-six deaths, which were more immediately occasioned by the extreme frequency of colliquative diarrhœa and dysentery."

REFUSAL OF FOOD.

Various delusions, lead the insane to this determination. Some conceive it sinful to eat,—others, that their bowels are closed up,—that poison is mixed with their food,—that they are unworthy to live, and that it is their duty to starve themselves,

—or that, being really dead, food is unnecessary. Patients in a state of catalepsy, and some other spasmodic diseases, also require to be fed.

We sometimes succeed in overcoming the reluctance to take food, by placing the patient where others are eating, with some savoury diet near, and leaving him alone; or by placing food in his room at night. When all expedients fail, we must have recourse to some of the instruments which have been invented for the purpose.* That which is employed in Bethlehem Hospital, is the stomach-pump. Amongst the worst that can be employed, is that which is termed the spouting-boat (a spoon resembling a flat tea-pot with a spout), to introduce which, one or more teeth have been forced out.

Another mode of feeding, is by means of the hollow bougie, used in France. The patient being properly secured, the bougie, previously dipped in oil, is gently introduced into the nostril, and from thence into the stomach, and fluid nourishment poured in night and morning.

It is rarely necessary to continue these means long, because patients finding that they are forced to live, in spite of themselves, at length give in.

* Sometimes the mere sight of the stomach-pump is sufficient to overcome the opposition of the patient. A patient under my care, who had refused food for five days, with the intention of putting an end to his life, as he could get nothing to eat but "poisoned filth," found his resolution give way as soon as the tube of the stomach-pump was put into his mouth. He several times afterwards refused to take food for a day or two; but the threat of the stomach-pump was quite sufficient to induce him to comply.

CHAPTER XVII.

MORAL TREATMENT.

The indications to be fulfilled by moral means are, in the first place—

a. The removal or diminution of the action of moral causes.

b. The separation of the patient from persons and objects, which increase the peculiar symptoms of the case.

c. The prevention of acts, prejudicial to himself or others.

Moral means are also employed, in the second place—

a. To dissipate errors of perception, giving rise to delusive ideas and disorderly actions.

b. To arrest or divert the attention, according to the peculiar symptoms of the case.

c. To restrain disordered inclinations.

d. To encourage the timid and desponding.

e. To restore the usual affections and inclinations, the absence of which is a certain and almost constant sign of insanity.

In order to fulfil the various indications above-mentioned, the mind may be operated upon in different ways, and of these, I shall first consider—

REMOVAL FROM HOME.

The immediate separation of the insane, from persons and objects to which they have been daily accustomed, is in most cases necessary. Domestic treatment is seldom admissible, from the patient denying the existence of the disease; hence arises his aversion to near relatives, on account of the measures of restraint imposed upon him, and which he assigns to their plots, and evil designs.

That this removal, however, may be too indiscriminately adopted, there can be no doubt. Persons in febrile delirium, have been sent to a madhouse; and to prove to you that we ought not to be in haste,

to recommend this measure, when there is any reason to doubt its instant propriety, I may mention the case of a young lady, who became delirious, and whom I was called in to see;—removal from home was proposed, but I objected to it. The result showed that I was in the right, for in the course of a week she got well.

In a second case, I was called in to see a gentleman, who had been delirious four days; his pulse was little affected, and the heat of his skin was little increased,—removal from home was proposed; but, considering the short time the delirium had existed, I dissuaded his friends from the measure. On calling next day, to my own astonishment, I found that he had died in the night-time.

On another occasion, I was sent for to examine a lady, for the purpose of giving a certificate of insanity; certain circumstances led me to suspect the too free use of liquors, and I declined. The event in a few days, proved that my suspicion had been well-founded.*

* While I had the medical charge of the Norfolk County Asylum, some cases occurred which strongly marked the great impropriety that is sometimes committed in this way through ignorance, and want of common sense. An old man, aged sixty-seven, was admitted in a very feeble state, with very extensive erysipelas of the arm, and in a state of low, muttering delirium; his pulse was scarcely to be felt, and he was evidently sinking,—means were used to restore him, but without effect: he died thirty-six hours after his admission. In another case, a female of about thirty years of age was removed to the asylum within a week after her delivery,—she died three days after her admission, in a state of coma, preceded by low, febrile delirium. Two other cases occurred, —both young females, who had symptoms of acute inflammation of the brain,

We ought also to keep in mind, that this measure, removal from home, is not absolutely required for many insane persons. Still, where insanity is *completely established*, I am quite satisfied that no bad consequences can result from this measure, at least for a time, and that it is often indispensibly necessary for the patient's recovery.

M. Esquirol, who is so strenuous an advocate for the seclusion of deranged persons, candidly admits, that he cannot assert it *never* to have been prejudicial. He frankly owns, that its effects are sometimes injurious; he says, that it partakes of the nature of those things, the best of which, are not always free from inconvenience. He draws the conclusion, that the measure of confinement, should not be adopted too generally, nor too exclusively; and, that it should be prescribed only by the experienced physician.

It was long ago observed, by this highly informed and judicious writer, that the necessity of confining madmen, depended upon the state of their moral affections. He has lately explained more fully, the meaning of this remark, and has furnished us with suggestions for following it out, to its particular applications.

When the predominant feelings of the monomaniac are such as are calculated to estrange him from, and set him at enmity with, his re-

who both died within a day or two of their removal into the asylum. The medical practitioners who had examined these patients had either been ignorant of their profession, or had betrayed most culpable negligence in their examinations.

lations; when he is actuated by pride and misanthropy, by jealousy, hatred, or malice; confinement is absolutely necessary. If, on the contrary, the illusions of the patient relate to objects of indifference, and excite no strong emotions,—if he has no aversion to his home, and the persons with whom he lives, although confinement may be useful, it is not absolutely necessary. But, if the patient, retaining a large portion of his intellect, has a strong attachment to his relatives, it is to be feared that confinement would aggravate the disease.

By this step, we obtain a removal from causes which agitate the patient and excite hurtful impressions, from persons against whom he has taken a dislike, as well as from those, against whom causes of complaint may not be altogether without foundation; for, in the early stage of insanity, its real nature being often mistaken, actions are sometimes harshly viewed by relatives, and treated as the effects of passion and caprice.

When an insane person finds himself placed under the charge of strangers, the same respect and submission are not looked for, as in his own house; where obedience is insisted upon, and its refusal produces excitement. Strangers too, by attention and kind treatment, are more likely to soothe and gain his attention, and confidence. They may also refuse his unreasonable demands, without exciting so much irritation, as the same refusal from relatives, is likely to do.

This removal from home, to a situation where everything is new, is likewise calculated to excite a diversion in his thoughts,—and frequently has a powerful effect in dissipating delusive impressions.

Seclusion may be effected, either in a private house, where only a single patient is kept, or in a public asylum. The advantages of the former are, that scenes which might be injurious are avoided, and the medical attendant has it in his power to give his undivided attention to the case. This mode, is to be preferred in recent cases, where circumstances permit; and, especially where the mental disease is but in a slight degree.

The disadvantages which attend it, seem to be the unavoidable expense. Some relation, also, generally chooses to remain near the invalid, or else the latter soon perceives that everything by which he is surrounded is destined for his service; in either case, the objects of seclusion are imperfectly attained. Lastly, many things are often required, which are only to be found in public establishments.

The advantages of public establishments, for the reception of the insane, are, that they afford greater facilities, and at less expense. The construction of them, may be adopted to fulfil all the ends that may be wished for, and in the best manner; intelligent attendants may be instructed in their duty; the patient may be withdrawn from every cause that might counteract the intention of the physician; and they open an extensive field of observation for im-

provement. The alleged disadvantages are, that circumstances may occur, which may have an injurious effect on the insane, especially in remissions and convalescence; and that the idea of having been confined in a madhouse is distressing to the patient, and painful to relatives. Granting this to be the case, the number of those who cannot afford private treatment, is so great, that public establishments must be resorted to.*

CONSTRUCTION OF ASYLUMS.

Hospitals for the insane should be rendered as comfortable, and as unlike a prison as possible, and the nearer they can be made to resemble a domestic dwelling, the better they are.

With regard to the construction of large establish-

* "In public asylums," observes Georget, "the seclusion is complete; the patients soon know that they are under the authority, and even at the discretion of the director; they are watched and constrained without difficulty, under the care of regular attendants. They find powerful sources of occupation and of distraction in associating even with the other patients. The greater number of lunatics never discover that they are in the midst of mad people, and find nothing to complain of in that circumstance. When their reason begins to return, they are removed into the department destined for the reception of convalescents, and hence are withdrawn from sights which might make unpleasant impressions upon them.—*Georget De la Folie.*

ments for the insane, it may be sufficient in this place to observe, that a moderately elevated position is to be preferred, both for the purpose of ventilation, and also in order that there may be a view from the airing courts, in each of which, there should be shelter provided, against too great sunshine, as well as rain.

There should be an abundant supply of water; and there should be galleries for walking in during cold and wet weather, as well as larger rooms for such increased accommodation and occupation, as may be deemed necessary. The windows of the sleeping rooms should be in front of the door, in order that each apartment may be thoroughly ventilated, when opened. There should likewise be small openings in each door, with a moveable slide, by means of which, the patient may be overlooked when necessary.

The whole of the galleries, day-rooms, and sleeping apartments should be lined with bricks, but not plastered. The number of single sleeping-rooms to be provided, need not exceed one third of the whole number of patients; but they should be made large and roomy. The dormitories may be constructed to contain from three to twelve beds each; at the same time, if dormitories for three patients can be avoided, so much the better. And although I have named twelve, as the maximum—still, in some well managed asylums in this country, a greater number of patients sleep in the same dormitory, without in-

convenience to the regulations of the establishment; so that if circumstances render it very desirable, one or two rooms might be provided for as many as fifteen patients. In all cases, there should be a space of at least two feet between each bed.

It has been found an economical arrangement, in some of the English Asylums, to make a portion of the gallery as a day-room, by adding a projection with an oriel window in it. The comfort of this arrangement, might be increased by having folding doors, sliding into the projection walls, so as in winter to enclose this portion, in which, an open fire-place should be provided.

The floors also, as a general rule, ought to be of wood; for epileptic patients are apt to receive very severe injuries from falling on stone pavements. In Bethlehem Hospital, wooden floors have lately been put down in place of stone.

Such buildings should also be constructed, so as to expose the patients as little as possible in going up and down stairs, which are frequently the cause of accidents, particularly in epileptics. This part of the building is highly important in practical detail; my view on this point is, that they should be constructed four feet wide, and carried up straight *(not winding)*, with a broad landing half-way between the floors, as this will enable feeble patients to be carried up to a cheerful part of the asylum, where they will be removed from the noisy and dirty.

The greatest attention must be paid to ensure pro-

per ventilation and lighting of the building, as well as the warmth and cleanliness of the patient.

To ensure a proper degree of heat, I very much approve of open fire-places, combined with heat produced by pipes containing steam, hot air, or hot water.* In Bethlehem Hospital, and in the Surrey Lunatic Asylum, the day-rooms are so heated. Wire guards are necessary in the wards where the more excited patients are placed.

With regard to the beds I may observe, that the best form for dirty patients is, in my opinion, the common wooden trough-bedstead filled with clean soft rye or oat-straw, with the bottom made to slope gently towards the middle, in which there is an opening to carry off the moisture into a pan, beneath the bedstead. A mattrass with an oval aperture in the centre, of about eighteen inches in diameter, to be filled with a moveable centre-piece, or with fresh straw frequently renewed, is adopted in some houses, and sheets of caoutchouc cloth are employed where the patient is extremely dirty.

* Without commenting on the advantages of the two first, it is enough to say that the third mode appears to be preferable. The apparatus by which this is effected consists of a furnace connected with a boiler, or coil of pipes, in which the water is heated; and two series of pipes, by one of which the hot water is conveyed to all parts of the building, imparting its heat as it flows along,—by the other, the water is returned to the boiler, to be again heated. These pipes may be carried along passages, introduced into sitting and sleeping-rooms, and in such a manner as neither to be seen nor to be accessible to the patients. This plan is completely adequate to the end in view,—the degree of heat can be regulated, is equable, and does not alter the qualities of the air; it is also easily managed, as the water will circulate if its temperature is kept at 120° Fahrenheit.

For patients who are very feeble, or who are subject to epileptic fits, this trough bedstead is also better adapted than any other, the legs being cut off, so that no injury may result to the patient from falls. An excellent plan for such patients also, is to have a mattrass made to fit the whole floor of the apartment, with bedding in proportion. Iron bedsteads are to be preferred for the general class of patients.

The class of patients who are generally to be found in the public asylums of this country, have never been used to a softer bed, than that which has been described, as forming the ordinary bedding of the dirty patients; and it certainly would not be judicious, to habituate such persons to a more luxurious bed in the establishment, than they could procure on returning to their former occupations, after their recovery. The beds should always be liberally filled with good soft straw, which should be changed as often as necessary. Two sacks of straw may, if preferred, be allowed instead of one; as two moderately filled sacks, form a much more comfortable bed than one stuffed very tight, and the straw also is much more easily adjusted in the morning.

Blankets and sheets should be liberally supplied, in proportion to the coldness of the weather, and the necessities of the individual. The utmost cleanliness should always be maintained in this respect, as the tranquillity of an asylum, depends more upon the personal cleanliness and comfort of the inmates, than one, unacquainted with the subject, would be apt to imagine.

For the use of the aged, infirm, and paralytic patients, a variety of beds &c., will be found indispensible. In fact, for this department, the usual appliances and accommodation of a general hospital are required.

Cheerful airing grounds, all will allow, is another subject of importance. The boundary walls need not be more than six feet six inches, or seven feet in height; and to obviate the sombre appearance they would have, they should be sunk at least four feet, with a broad descending slope, the verge of which should be laid out with a border of shrubs and flowers, preserving the promenade of the patients within.

CLASSIFICATION.

With regard to the arrangement, or classification of patients in a large establishment, upon which the success of an institution of this kind materially depends; it is unnecessary to say, that a complete separation of male and female patients is absolutely necessary. A separation of those deemed incurable, from those who are under curative treatment, is desirable. The violent and noisy patients, ought

to be kept in a part of the establishment, remote from the more tranquil, and as much as possible under the view of the medical officers.

Large wards are always attended with disadvantages; since a large number of insane persons, are seldom, if ever, sufficiently tranquil to bear with one another. One troublesome and noisy patient, is quite enough to disturb a whole ward.

The worst class of patients, such as the refractory and epileptics,* should occupy the ground-floor; and the greatest proportion of single rooms will be required for this class. There may, however, be one or two dormitories for small numbers, provided with rooms for attendants, in the proportion of one to twelve patients.

On the first floor of the building, the proportion of single rooms may be diminished, and the dormitories made to hold as many as eight or ten patients each, with rooms for attendants, in the proportion of one to fifteen patients. The upper floor of the building should be apportioned to the use of chronic cases, and such patients as are quiet and harmless, so that very few single rooms will be required; and those, for use only in case of patients being troublesome during the night. The attendants on this class, need only be in the proportion of one to twenty or twenty-five patients.†

* Those epileptics who in general are rational, cleanly, and well-behaved ought of course to be placed among the better class of patients.

† In eight of the district asylums in Ireland, which are exclusively for pau-

They may also be further sub-divided in the following manner:—

First, The violent or refractory patients who may occasionally require seclusion, or even personal restraint.

Secondly, Those in a state of Idiocy and Fatuity, and the dirty patients.

Thirdly, Those who are occasionally excited, but who are neither violent nor mischievous.

Fourthly, The tranquil and convalescent.

Fifthly, An infirmary.

Strict order and regularity should be maintained as much as possible, in all departments, but more

pers, and correspond to the English county asylums, there is a proportion of one attendant, including "deputies" and "assistants," to nine patients; or, taking responsible attendants only, one to thirteen patients. In the Cork asylum, the proportion of attendants of every description does not exceed one in eighteen. In the York asylum, the proportion is as one to eleven or twelve. At the Lincoln asylum, where no personal restraint is permitted, the number of attendants is one to nine patients; the proportion here, however, was the same in 1836, before any such change had been made in the management. In the asylums, at Montrose, Aberdeen, Glasgow, Dundee, and Perth, the proportion including attendants on all classes of patients, appears to average one to ten. At Sigburg, we learn from Dr. Jacobi, that the proportion of attendants is not less than one to seven or eight. At the Quaker's retreat, the proportion is even larger, and amounts on an average to one attendant in every six or seven patients. It is quite obvious, that the duties which belong to the office of an attendant cannot be properly performed by one person for such a number of patients as are assigned in many of our asylums to a single attendant; and the fair inference is, that some of these duties are either omitted, or are performed by the patients themselves. The employment of them in this way to a certain extent may even be desirable; but it requires great care that the practice be not abused to the oppression of the labouring patient, and to the inducement of habits of idleness on the part of the attendants.

especially among the convalescents; and whenever there is an appearance of relapse, or of a troublesome disposition, the patient ought to be removed to the third division before-mentioned, for the fear of this removal, sometimes operates as a powerful incentive to self-control.

ATTENDANTS.

With regard to the immediate attendants on the insane, it may be observed, that a mild disposition, combined with bodily strength, honesty, sobriety, and a disposition to pay strict attention to regularity, are among the qualifications more especially necessary. They ought to preserve an entire command over their own temper, and take especial care that the patient be not irritated.

Mr. Tuke has justly observed, that one who has not lived in an asylum, can but faintly conceive the temptations to neglect, oppression, and cruelty, which continually present themselves to those who have the care of the insane; or of the difficulty of suppressing the natural feeling of resentment, which rises in the mind, on witnessing the mixture of mischievous folly and good sense, which often marks

their character. Much Christian charity is required, to bear with their insults and abuse. They must manifest towards the patients, a mild and conciliating behaviour, and contribute everything which their several conditions permit, to the alleviation of their sufferings, and endeavour to procure for them every suitable recreation,—encouraging and praising them whenever there is room to do so. They ought to consider the patients committed to their charge, as persons to be treated in the mildest, and most conciliatory manner possible,—regarding everything in the conduct of the patient towards himself, which might excite angry feelings, as the simple expression of the disordered mind, of an unfortunate fellow-creature. Any ill-treatment, by blows or otherwise, or by withholding food, or other articles to which the patient is entitled, must never be suffered. No upbraiding, rude, or immoral language must be permitted, nor should a patient be provoked to express his disordered ideas, in order to afford amusement to the idle visitor.

SUPERINTENDENCE.

The managers of asylums, ought to establish a strict system of regularity and order in the house,

exercising the closest inspection and control over the whole; guarding especially against two evils—favoritism, and employing attendants in other occupations than the care of the insane. Experience too fully proves, that close and unremitting vigilance is needful, to protect the patients from the negligence of their attendants; and nothing tends so much to encourage this, as taking the attendants from their proper wards, to assist in other departments of the establishment.

This unceasing superintendence of the attendants, is to be conducted by the *resident* officers, who ought to visit all departments of the asylum, several times in the day; and from time to time in the night. They ought to ascertain that the attendants rise at a proper time,—that they do their duty with respect to the patients' food, clothing, &c. They ought likewise to observe, that the patients are not allowed to cram themselves with food, nor to swallow large mouthfuls. After the patients go to bed, they too should also, from time to time, ascertain that their clothes are properly removed from the room. Without this constant vigilance on the part of the officers, the strictest rules laid down for the general management of the asylum, will be of little avail.

Attendants or domestics ought never to be found fault with before the insane, as this most materially tends to lessen their consequence in the eyes of the patients, and to encourage a spirit of contempt, and resistance to their authority.

In all asylums for the insane, there ought to be a night-watch, to go their respective rounds, and preserve as far as possible, the quietness of the place, and attend to the wants of the patients, especially of those who may be sick.

In regard to cleanliness, the attendant must be particular in seeing that all patients under his care, are washed and combed, and attend to their general appearance. All vermin must be prevented as much as possible, by proper attention to cleaning the patients on their admission, and afterwards, by attending to their persons, clothing, bedding, and apartments. The bedding ought daily to be beat up and aired, and clean sheets, &c., afforded as often as may be necessary. The sleeping-rooms, day-rooms, and galleries, swept, washed, and ventilated, and all dirt and filth immediately removed; in particular, the straw and foul bedding of dirty patients.

RESTRAINT.

It is not to be expected, where many persons deprived of reason and self-control, are assembled together, that order will always be preserved. Quarrels and disputes will arise, and some of the patients

will be inclined to mischief. To prevent disturbances, therefore, the attendants must allay them in the best manner they are able, and resort to proper measures for disarming a patient who may threaten any danger; if necessary, by having recourse to restraint, either by seclusion or even by mechanical means. It must be continually borne in mind, however, that *restraint and coercion are to be resorted to only for the good of the patient, and in no instance, and under no circumstances, for the convenience of the keeper.*

MECHANICAL MEANS.

Restraint by mechanical means, I consider to be far preferable to permitting a patient to struggle with a number of the keepers; even supposing it were possible, so to control and regulate the temper and passions of the attendants, that no unnecessary violence should be used and no "paying off of old scores" indulged in; because by such means, the patient's rage and excitement is continually kept up; he is perpetually renewing his struggles, in the hopes of suddenly surprising those who hold him, and of finding them off their guard; whilst they, in a moment, perceive the inutility of struggling against

mechanical restraint, and by being left to themselves, speedily become quieted and tranquilized.*

When restraint has been imperatively called for, it not only acts as a protection to such patients, and those above them, but in some cases also tends to induce habits of self-control, and in this way, checks the propensity to act upon the impulse of the moment. "This is most satisfactorily illustrated" (I quote the words of the late Dr. Haslam), "from the avowal of some of those who have recovered, and who possess a recollection of their disordered state. When such persons have been asked, to what

* Those who are unacquainted with the extreme violence of maniacs, and the muscular strength which they are capable of exerting, cannot conceive the contention, struggles, and personal injuries which the patient himself consequently suffers, when a prejudice or a false humanity interferes, and prevents a proper control being exercised. I have known the patient in these personal conflicts to sustain such serious bruises and lacerations, that, in more than one instance, mortification of the parts, and death have followed.—*Burrows, op. cit., p.* 689.

The observations of Mr. Tuke on this subject are so just, that I cannot forbear quoting them at length. "I freely acknowledge," says he, "the conviction that there are cases in which, under the most favourable management, we should best consult the feelings of the patient, as well as the comfort of his companions, by the application of mechanical means of restraint. Certainly there are cases in which the patient himself solicits it,—where the reason struggles with the impetuous delusion, and finds, even in a degree of restraint, which upon a man not insane would be no preventive to mischief, a help to self-control, and a check upon the specific mode of action to which the malign influence impels him. Such cases are not very common, neither are they very rare. I have witnessed them in connexion with a strong disposition to strike others, as well as with an occasional rushing impulse to particular means of self-injury. There are also cases in which no struggle of the reason is perceived,—marked by a determined disposition to violent and dangerous action, or a strong, active suicidal tendency, in which I apprehend some restraint upon the free action of the body

circumstances they especially attributed their recovery, they have in general deposed, that when they found themselves effectually restrained from fulfilling the dictates of their will, they then became enlightened by a gleam of reflection, and ceased to obey the impulses which prompted them.

Of the different modes of restraint by mechanical means, the straight waistcoat used to be the most commonly employed; many disadvantages, however, attend its use, especially in hot weather. The patient confined by it, is unable to feed himself,—to drive away the flies,—or to assist himself in his necessary

must be imposed, either by the passive resistance of mechanical applications, or by the active coercion of human force. It may be said, that these violent paroxysms are seldom of long continuance; but they are sometimes of sufficient duration to weary the patience, exhaust the mental and even animal resources, and excite the feelings of fear, resentment, or disgust, in the mind of the attendant. If the patient is not to be restrained by a strap, are there no other vulgar appliances within the attendant's reach by which he may *overawe* the unhappy subject of his care? I fear and believe there are; and that in the struggles which cannot fail occasionally to take place, fear may be excited, and sufferings inflicted, far more distressing than those occasioned by the right application of mechanical restraint; with this additional disadvantage, that they are less open to public notice. Nothing is more to be deprecated in the treatment of the insane, than the protracted struggles between them and their care-takers. In our large institutions, the attendant must be left to a great extent to carry out the directions of the superintendent in their own way and spirit; and this, our knowledge of attendants as a class, hardly justifies us in expecting will even *generally* be best. This liability to abuse and perversion, even under enlightened management, deserves consideration; but if the system has to be carried out by a reluctant or inefficient officer, or is left mainly to the ordinary attendants, there can hardly be a doubt of its inexpediency. The law of brute force, by which men so constantly try to accomplish their ends, acts through an almost infinite variety of means, and neither chains nor straps are absolutely essential to its most cruel application."—*Tuke's ed. of Jacobi, p.* xxxiii.

evacuations. It may also, be too tightly drawn upon him, and in this way affect the circulation, and his breathing; it may likewise be untied by the other patients, and sometimes, even by the patient himself. The only use made of it in Bethlehem Hospital is to keep the patient still, while introducing the stomach pump, when he is obstinately bent on committing suicide by starvation; and when every other means of inducing him to take food, have failed.

Various substitutes have been recommended instead of it, amongst which, are Gualandi's straight dress, and the Bethlehem smock-frock, both made of strong ticking or canvass, and fastened with strings or small padlocks; and also sleeves and muffs made of leather or flannel.

It is of course to be understood, that none of these means are to be had recourse to, until every other means have been tried and have failed.

Should a maniac, in a state of furious excitement, refuse to submit, it may perhaps be found necessary to overcome him by several attendants advancing upon him at once, without showing any hesitation, or even seeming to have the least idea of his offering any resistance. When this is done, he generally yields, for the apparent courage of most lunatics soon evaporates; and firm conduct, with mild management, will in general keep the most refractory in subjection. If he still does resist, in extreme cases, a table cloth or large sheet may be suddenly thrown over his head, and when thus taken by surprise, and not seeing

where to strike, or how to defend himself, he is speedily subdued.

SECLUSION.

In almost every case of excitement, seclusion in the padded room, as it is called, will be found to be sufficient. This consists of a small room padded with cushions, stretched on a frame-work of wood, and stuffed with horse-hair or cocoa-nut fibre, and having the floor covered in the same way. In Bethlehem Hospital, the padded rooms are lined with a composition consisting of india-rubber and cork; but although possessing the advantage of being more easily cleaned, I prefer the first-mentioned, as I consider them to be too hard, so that a resolute maniac, if so determined, might easily inflict injuries upon himself, by throwing himself against the walls. As light is often a source of great irritation, so darkness is a powerful auxiliary in obtaining quiet, and preventing the renewal of raving. But we should as speedily as possible ascertain that darkness does not beget real terror. Many, besides the ignorant and superstitious, have an unaccountable dread of being left in the

dark; and the worst consequences might follow, by their being so treated.

Although we cannot enforce too much the employment of soothing means to calm and restrain the violent and mischievous insane,—still, if these entirely fail (and especially when the patient is in a condition to be sensible that his conduct has called for marks of disapprobation), these become necessary.

I must not omit to mention, that merely threatening measures of restraint has, in many cases, made a powerful impression on the insane; especially on those in a state of Imbecility or Fatuity.

Withholding certain accustomed indulgences, such as snuff, tobacco, &c., and change of ward, will also be found to be highly beneficial.

MORAL REGIMEN.

The next subject I am to consider, is one attended with still more difficulty than that we have been considering; it is that part of the treatment which has been termed moral regimen, or discipline.

This cannot be put into practice until the paroxysm of Mania has been subdued, or until, in Monomania,

the ideas become of a less fixed nature, so that the mind of the patient appears capable of receiving and appreciating new impressions.

Without entering into very minute details, the following seem to be the two principles that ought to direct us in regulating this moral discipline: first, to avoid whatever has a tendency to set the patient's mind at work upon the subject of his derangement; and secondly, to dissipate these erroneous ideas and irregular inclinations and affections, by introducing different and rational ideas.

ARGUMENT.

With regard to the first of these indications, it might at first seem probable, that judicious arguments ought to prove useful in breaking the morbid train of ideas in the brain of the madman;* but in practice,

* The most plausible case of this kind, is that of the mechanician mentioned by Pinel. This person was haunted by the idea that he was one of the victims of the revolution,—that he had been guillotined; but the sentence having been reversed, just at the moment the execution had been completed, the judges, in order to remedy, so far as possible, what had been done, commanded that the heads should be replaced on the respective bodies. In the confusion, two heads were transposed; the mechanician lost his own, but was provided with another, which he very much disliked, and which he attempted to prove was not his own property by saying, "look at these teeth; mine were exceed-

this is not found to be the case. When we attempt an argument with a patient in the active stage of the disease on the folly of his ideas, although he may sometimes appear to assent, he always reverts to his delusions, and in general, will flatly tell us that it is useless to talk, for we cannot persuade him. By forcing him, as it were, to seek arguments to support his erroneous ideas, we not only lose his confidence, but render him more obstinate in his opinions; thereby protracting or preventing his cure. By his efforts to argue, and by the rage and fury sometimes excited, there is produced an increased determination of blood to the head, indicated by the usual signs of flushing, heat, strong pulsation of the arteries, &c., by which the irritation of the brain is necessarily increased.

Until reason, therefore, has in some degree resumed its empire, we cannot, without the risk of doing harm, attempt, in a direct manner, to dispel delusion. But, though reasoning *with* the insane, is generally useless, Dr. Cox has judiciously suggested, that the

ingly handsome—these are rotten and decayed. What a difference between this hair and that of my own head!" He likewise imagined that he had discovered the perpetual motion, and worked night and day in the construction of a machine on this principle. He often quarrelled with his companions on the subject of his head; and one of them being instructed how to act, led the conversation to the miracle of St. Denis, who, it is said, walked about with his head under his arm, and kissed his own lips. The mechanician maintained the possibility of this,—his opponent retorted: "Madman that thou art! how could St. Denis kiss his own head—was it with his heels?" This discomfiture is said to have restored him to reason. But here it is quite evident that the six months course of vigorous application to his business was more instrumental in the cure, than the biting repartee.

ideas which partake most of the delusions, may sometimes be efficaciously combated, by a few arguments or propositions, frequently repeated, in the patient's hearing. The talking *at* will be found to be more useful, than talking *to* the patient.

OCCUPATION.

In fulfilling the other indication, that of restoring rational ideas, and accustomed feelings, we endeavour to detach the mind from unreasonable ideas by occupation; both in the form of useful employment, and of amusement.

The advantages of bodily labour, as a powerful means of moral discipline, are generally admitted; and the returning desire for occupation, is a good sign.

The attention of the monomaniac, hitherto concentrated on certain ideas, begins to be diverted from them; and the wanderings of the maniac, to become more fixed. The body thus exercised is, at the same time, strengthened, and the mind begins, as in health, to form intellectual combinations, and to regain the power of changing the train of ideas. On all these accounts, patients ought to be induced to

occupy themselves by every possible means. They are, however, never to be compelled to work; coaxing and persuasion are to be employed, but not compulsion. It is a principle not to be overlooked, that the occupation of the insane, is to be regarded as a means of forwarding the recovery, and of increasing the comfort of the sufferers, and not as a means of saving expense to the establishment.

In some institutions, particularly in France, a part of the produce of the labour performed by the patients, is given to them. In Bethlehem Hospital, also, the whole produce is given to them. Part of it might in all cases be judiciously set apart to form a fund, from which small sums might be given on the discharge of any patient, to supply his more immediate necessities.

Occupation, analogous to the former mode of life, is to be preferred for those in the inferior classes of society; because encouraging a disposition for pursuits and amusements above their station can only do harm, instead of good, on their return to their homes, if cured.

It is worthy of remark, that we seldom hear of patients injuring themselves, or others, with their tools. It is to my friend, and for many years, colleague at the Hanwell Asylum, the late Sir William Ellis, that we are indebted for ascertaining that, provided judgment is exerted in the selection, tools and implements of various kinds, may be placed in the hands of a large proportion of the insane.

In pauper asylums the male patients may be use-

fully employed in the work of the garden, or the farm, or as carpenters, bricklayers, painters, &c. Printing, even, has been introduced into some establishments. The female patients may be employed in needlework, washing, embroidery and fancy-work, &c. At Hanwell, picking cocoa-nut fibre like oakum, was, by Sir William Ellis, made the means of occupying the greater number of poor creatures whose minds appeared to be almost totally gone, and who were capable of doing nothing else.

In general, there is more employment to be found for the female patients, except, perhaps, in some of the manufacturing districts; hence, probably, the apparent superiority in the management of the male patients, in Yorkshire, Dundee, &c.

AMUSEMENTS.

In asylums appropriated to the upper classes, we seldom have it in our power to employ the same means as in those set apart for the poorer classes. There are, however, many occupations in which a lady or gentleman may be engaged, although unaccustomed to labour; such as the

amusements of billiards, bagatelle, draughts, bowls, ninepins, shuttlecock, &c.*

The exercise of cultivated talents, as those for painting, and music, however imperfect, may be encouraged. And for those who are in a state of Fatuity, like second childhood, even dolls or other toys may be of use. Dr. Hallaran mentions the case of a young man who had nearly been classed amongst the incurable patients, at the Cork Asylum, and who, one day, was discovered drawing on the wall of his apartment. He was questioned, as to his knowledge of drawing, and having signified some acquaintance with it, he was furnished with colours, and the necessary apparatus. He succeeded in taking a very tolerable portrait of one of the attendants, and by employing himself in this way, for about two months, his mental faculties were so much improved, that he was dismissed cured, and afterwards pursued the profession of miniature painting with success.

Public dancing, balls, plays, &c., have been attempted in some establishments, in particular at

* Much has been said in favour of amusing occupations for the insane, and they certainly are not to be overlooked; especially those which require active exercise in the open air; but they are not to be compared as regards their beneficial influence on the mind with those occupations in which a man labours to some useful end. It appears to be a providential ordination, that our healthy and agreeable feelings are connected with the employment of our time, in the moderately active pursuit of some apparently useful object; and even if this were not the constitution of our nature, the habits of that class of persons which mainly supplies our public asylums, would point out the importance of keeping up that association between the enjoyment of health and labours which their circumstances have induced.—*Tuke's Translation of Jacobi, p.* xxix.

Charenton, at Aversa near Naples, and in some of the American asylums. But neither of these modes of amusement, in any situation of life, appear to me calculated to produce good effects upon imaginations, already too much excited. In this general condemnation, however, I do not mean to include occasional *small and select* parties, among the convalescent patients of an asylum. They should, however, at all times, be conducted with the greatest privacy and decorum.

Reading is rarely to be advised in recent cases, until convalescence has made some progress, and then, great judgment is required in selecting books. All reading which disposes to strong emotions, ought to be avoided, as well as that which exhibits opinions or scenes, capable of distressing the patient, or of confirming or increasing the delusions he has entertained. The choice of books must, in some measure, be determined by the character of the disorder; the literary education, and the ruling ideas of the patient. It ought to be of a nature likely to arrest the attention, and carry it forward in a connected train, such as voyages, travels, and the like.

Live animals, such as cats, rabbits, birds, and fish in glass vessels are frequently of use about an establishment of this kind, as they tend to excite the attention and interest of the patients.

RELIGIOUS EXERCISES.

The adoption of a regular system of Divine Worship, tends to promote the cure of the insane, particularly by soothing the minds of those, in whom religious despondency prevails. It cannot, however, be regarded as a curative means, when the mind is not susceptible of rational communication.

The attempt to excite a spirit of devotion, must by no means be made too soon, and in no case, until the patient has acquired a certain degree of tranquillity and attention; otherwise, it may retard the recovery by alarming and disheartening the mind. Attempts to discuss erroneous views of religion, only serve to fix them more deeply.

In most hospitals and asylums, an opportunity of attending religious service is now afforded to convalescents, who express a wish for it; and to such incurable patients as may conduct themselves in a quiet and orderly manner.

Before religious instruction, however, be attempted, an intimate knowledge of every patient's state of mind, and of his former and present opinions regarding religion, should be first obtained; because, if men in their sound senses are so tenacious about forms and ceremonies, we may well imagine that among a num-

ber—some insane, some of weak intellect, and some convalescent,—offence may be taken, if the doctrine or rites most consonant to each patient's notions be not preferred.

EXERCISE.

With regard to exercise, every asylum ought to have extensive gardens and enclosures for exercise. There will generally be found, a large number of patients, who will be induced to occupy themselves rather in the gardens, than in the labour of a farm; which, however, may be made very subservient to the recovery of convalescent patients, and the useful employment of those who may be considered incurable.

For that class of patients, who appear almost to be without mind, Dr. Horn, of Berlin, constructed a waggon, which can contain several of the patients, and which is to be drawn by a sufficient number of the other patients, who take their place in the waggon by turns. The exercise thus obtained, is found to be very beneficial.

A capstan for raising water for the supply of the building, is used in the airing-grounds of Bethlehem Hospital, for a similar purpose.

Long walks in fields or woods, in company with a

suitable guardian, have principally aided in the restoration of health in some instances, in which the relatives of patients labouring under symptoms of mental disorder, have refused to send them to lunatic asylums.

VISITS OF FRIENDS, ETC.

Before admitting the visits of friends and relatives, we ought, as a general rule, to wait until the patient himself, has expressed a desire to see them.* In order to prevent effects which might be injurious, we ought to acquaint him that they are to visit him; we must also caution the relatives, to avoid conversation that might irritate, or make him more impatient of further confinement. If nothing unreasonable escape him, and if he be gratified by the first visit, and does not insist on going away with them, other visits may speedily follow.

In convalescence, we must ever keep in mind

* One of the most painful duties of the physician, is in repressing the importunities of the patient himself, and also of his relations and friends, to allow of communication. When convinced that it will be detrimental, resistance should be carried to the utmost point, and should be yielded only when importunity, on the part of those who have authority, assumes the character of command. In yielding contrary to his judgment, the physician should distinctly throw all responsibility on the applicant; otherwise, the consequences, if serious, will certainly be cast upon him.—*Burrows, Op. cit., p.* 700.

that as the organ affected remains in a state of irritation, its functions must be exercised as little as possible; we are therefore to avoid exposing it to painful or continued combinations of thought, or to sudden and violent emotions.

Relapses are frequently occasioned by too early liberation, procured either by the interference of friends, or by the importunities, and sometimes by the craftiness and dissimulation, of the patient himself.

It is not possible to state a definite length of time which ought to elapse after convalescence, previously to allowing the patient to be wholly at liberty; his character, habits, the nature of his derangement, and any propensity to violence or mischief which may exist, are all to be taken into consideration. There is no sign of recovery more certain, than the patient's being sensible of his former delusions; and his acknowledging that the opinions which constituted his disorder were erroneous.

In concluding these remarks on the moral treatment of the insane, I may observe, that even after reason is restored, we must keep in mind, that the abrupt transition from strict confinement to perfect freedom is to be avoided; and that removal to a situation where tranquillity and a certain degree of superintendence are combined, is in many cases advisable.

CHAPTER XVIII.

PATHOLOGY.

The object of necroscopical researches, is to ascertain the organic alterations which constitute the essence of diseases, and to determine their true seat. To obtain this knowledge, it is necessary

First, That we should know exactly the normal anatomy of the different organs; their texture,—and the mode in which their functions are performed.

Secondly, That all researches should be conducted with care, and minuteness. And

Thirdly, That descriptions of the various changes observed, should be recorded in uniform, precise, and plain language.

It is only by adhering to these rules, that we can expect to derive just and useful inferences, from the morbid anatomy of insanity. At the same time, we must keep in mind, that apparent soundness of organs, whose texture and functions are involved in obscurity, does not authorise us to pronounce, that no physical disorder of structure exists.

In the dissection of the bodies of insane persons, the brain has seldom been examined, with any degree of attention; since, nearly all, have been satisfied with a cursory examination, as if they expected to find changes equally apparent, with such as exist in diseases of the thoracic and abdominal viscera. Not sufficiently adverting to the fact, that the slightest derangement of the organization of the brain, such even as that caused by the effusion of a few drops of blood, gives rise to the most violent disorder.

It is, however, highly probable, that changes which are apparently very slight, but which produce consequences of the most important nature, take place. And at the same time, it is proper to observe, that the number of cases, in which no perceptible lesion of the cerebral organ can be detected by the senses, has been very much diminished, by the greater accuracy and minuteness, with which such researches have recently been conducted. Still, the want of uniformity in the results obtained, throws much obscurity on the pathology of these diseases.

CRANIUM.

In some few cases, the pericranium is found to be very adherent to the skull; and in others, is as remarkable for its looseness. In general, however, there is change to be observed from the natural condition.

Connected with this subject, I may mention a curious enlargement of the ear, which is sometimes observed in cases of long-standing and incurable insanity. The ear at first, becomes red, and then gradually swells, until it is almost of a globular appearance; if punctured during the early period of its appearance, a quantity of glairy matter escapes. The cavity, however, soon fills again, and the matter gradually becomes hard and cartilaginous. I have never seen it occur in any other than incurable cases.

The form of the cranium in idiots, has attracted attention since the days of Hippocrates, and researches on the subject have, in later times, been made by Willis, Prochaska, Ackerman, Malacarne, Bohn, Pinel, Gall, and others.

In the most common form, the frontal portion is depressed and flattened. Instead of being elevated from the base of the nose, it slants obliquely —sometimes nearly horizontally, backwards, like that

of some quadrupeds. In some cases, we find the upper part advancing, and making the root of the nose, and eyebrows appear sunk in the face, the lateral and posterior parts being, at the same time, much developed.

The general volume of the cranium in idiots is variable, for the most part, very small; though, sometimes on the contrary, very large. Patients who have had hydrocephalus, have occasionally enormous skulls, and these too, well ossified.

Many skulls are of unusual thickness,—even to the extent of half an inch or more.

The capacity of its cavity is in many instances diminished, owing to the thickness of the bones. The scalp also, occasionally, is much thickened, and may in consequence, lead us, during life, to conclude the cavity to be larger than it really is.

In some paralytic idiots, part of whose brain has been reduced in size, the vacuum on the wasted side has become thicker, and has thus accommodated itself to the diminished part.

The cranium receiving its form from the brain, and the bones composing it being at birth apart from each other, and moveable, it follows that it is not the cranium which has prevented the expansion of the brain, but that the appearances met with, particularly in the skulls of idiots, proceed from the less growth of the brain. It nevertheless happens in some cases, that the bones afterwards growing very thick, are the primary cause of the reduced size of the cavity.

I saw, in the possession of Dr. Spurzheim, the skull of a person who died in a state of Dementia, which was remarkably thickened in every part; in one portion, to the extent of an inch and a-half. It had evidently grown inwards upon the brain, and the impression made upon it by the arteries of the dura mater were very deeply marked. Tumors pressing on the brain have also produced Dementia.

These peculiarities observed in some of those afflicted with mental disease, may be produced by the influence of the disorder, in consequence of the progress of the affection of the brain. The important change which is effected in the brain itself, in process of time affects its bony coverings, in the same manner as the containing parts of an eye or a tooth contract, after the extraction of their contents.

CHANGES IN THE MEMBRANES.

The dura mater in some cases adheres very strongly to the cranium, and appears thickened; occasionally points of ossification, as well as long spiculæ of bone are found in it.

Morgagni was the first who noticed diseased appearances in the pacchionian glands accompanying Dementia.

Morbid appearances, however, are much more frequently observed in the arachnoid, and pia mater, than in the dura mater; such as traces of chronic inflammatory action; false membranes within the cavity of the arachnoid; opacity, and thickening of the latter membrane; great vascularity of the pia mater; inflammation with adhesions; cellular infiltration of serum, and many other deviations from the natural and healthy condition.

ALTERATIONS IN THE CEREBRAL SUBSTANCE.

When the skull is of small size, as in some idiots, or when the bones become thickened, the necessary consequence is, that the mass of brain is reduced, and when the forehead is depressed, the anterior lobes are thinner.

With respect to general consistence, the most remarkable differences have been noticed; thus, some brains are found to be remarkably firm and hard, even some days after death. In others, again, the medullary matter is so elastic, that it will bear considerable stretching before it separates. In the greater number of cases of long-standing insanity, however, the brain is unusually soft, the convolutions separate from each

other, the different commissural bands are easily torn, and the disposition of the internal parts traced with difficulty. In such cases, the distinction between the two substances appears in some places to be rendered indistinct, both appearing of a dirty yellowish white colour. In other cases, again, the medullary matter appears of a brilliant pearly white, while the cineritious substance assumes a violet or purplish hue. This latter appearance has, by some, been thought to be characteristic of the combination of Dementia with General Paralysis.*

The convolutions in some cases, are large and full; in others, small and contracted; or, both appearances are observed in different parts of the same brain.

The lateral ventricles of the brain are, in general, of the usual size; but great differences are to be observed in this respect—sometimes one is much larger than the other. In a considerable number of cases, these ventricles are found filled with serous fluid; several ounces have, not unfrequently, been found in each. Occasionally, also, a small quantity of serum has been found in the fifth ventricle.

The choroid plexuses, are frequently found to be studded with hydatiform vescicles, besides varying in size from that of a millet-seed to that of a pea.

The pineal gland is frequently observed to be in a diseased state, and has even been found obliterated altogether, as in a case mentioned by Esquirol.

* See Appendix, No. 2.

Erosions and ulcerations are sometimes found in the interior of the ventricles; in these cases, the serum contained in their cavities is turbid and flaky.

A granulated state of the lining membrane of the ventricles also is not uncommonly met with.

The cerebellum is, I think, as a general rule, found to be softer than the cerebrum; and some say that inflammatory appearances are to be found in the fourth ventricle much more frequently than in the lateral ventricles: but on this point I am myself rather doubtful.

The determination of the precise seat of mental alienation has been the object of numerous researches, which for the most part have been confined to the brain; and the greater number of practitioners have directed their treatment to that organ. At the same time, we have reason to believe that disease has in many cases commenced in other organs, in consequence of which, morbid action has been subsequently communicated to the brain. For instance, a man received a severe blow on the right hypochondrium, which produced vomiting and a state of unconsciousness, followed by febrile symptoms and insanity, with melancholy and fear. He died nine months after the accident, and on examining the body, no signs of disease could be detected in the brain, or in the viscera of the thorax; the liver, however, was found to be much enlarged, and full of tubercles.

A young woman, who gave herself up to excessive

indulgence in self-pollution, became insane; she, however, recovered from the first attack, but had a second, during which she died. On examination after death, an herpetic affection was found in the vagina.

Although it may be inferred that insanity is always connected with disease of the brain and its membranes; morbid anatomy has not been of so much utility in our researches into the seat of mental alienation, as it has been in regard to that of other diseased states; it has not hitherto demonstrated the nature of the change effected in the brain; for, except the malformation of the skull and its contents inducing Idiocy, nothing that is decisive has been obtained in reference to insanity from any variations in appearance that have hitherto been detected.

Esquirol opened the bodies of no fewer than three thousand persons who died in an insane state, and yet he says that he would be at a loss to tell what is the precise part of the brain diseased. Greding, Pinel, and Haslam, have also drawn nearly similar conclusions.

Indeed, Pinel has said that the nature of the affections giving rise to Mania, would lead us to think that its primary seat is almost always in the epigastric region. He says: "The insane, in the beginning of a paroxysm, complain of constriction in the region of the stomach, and there is distaste for food, and obstinate costiveness. Soon afterwards, disorder of the ideas is manifested, and the reaction

of the epigastric powers upon the functions of the understanding, far from obscuring them, only augments their vivacity and energy."

Spurzheim's observations on this subject, in conformity with the doctrines of Gall, are, that in the greater number of cases of partial insanity, the respective organs will be found larger, and the head hotter above them, than in other parts; he says—

"In insanity where vanity prevails, the organ of approbation is large,—where pride prevails, that of self-esteem. Persons insane upon religious points, have elevated heads. The visionary who has communication with spirits, has the head elevated at the middle, lateral parts of the coronal suture;" and so forth.

Were these conjectures to be verified, they might enable us to determine the seat of the suffering mental power,—form a judgment of the probable event of the complaint,—and likewise, know where to apply local remedies. Yet, even this knowledge, were it attainable, must be of uncertain utility; for were we to apply local bleeding or cold lotions, they would effect, not only the spot on which they are applied, but also the whole head; and did much depend on the exact application of the remedy upon the affected organ, we might do more harm than good; as, what might be useful to the diseased organ, might injure others around it.

I have thought it proper to mention these con-

jectures, although I have never been able to satisfy myself of the truth of these doctrines; and am of opinion, that in the present state of our knowledge, they can lead to no practical utility. Others, however, may view the matter in a different light.

PROXIMATE CAUSE OF INSANITY.

With regard to what is termed the proximate cause of insanity, or the cause of the immediate effects, by which the existence of the disease is known—

Cullen was of opinion, that madness consists in some inequality in the excitement of the brain, or of the nervous system; and, in most cases, of an increased excitement.

Arnold and Parry, conceived determination of blood to the brain, or increased activity in the sanguiferous vessels, to be the proximate cause of insanity.

Marshall, however, differs from them, and observes that, "although increased vascular action alone, will disorder intellect, as we observe in violent exercise, abuse of ardent spirit, and febrile action, yet this increased action may go off, and the person be left

sane in mind; or it may go off, and maniacal action be substituted."

Crichton (taking for granted, that the nervous power is a peculiar fluid, secreted in the medullary substance of the brain, or of the nerves) endeavoured to shew that the cause of insanity, is a specific morbid action of the vessels, which secrete the nervous fluid, and which, hereby may be altered not only in quantity, but in quality.

From the quickness of the external senses, the irascibility, heat of skin, flushed countenance, and uncommon energy, evinced by maniacs, he conceives this morbid state to be, for the most part, preternaturally increased action.

At the same time, as it is probable, that the state of the faculties depends upon a healthy energy of the vessels, it might be supposed that a too scanty secretion of nervous fluid, must be as effectual a cause of mental derangement, as a too copious flow, and that torpor of the vessels of the brain, may prove a cause of derangement, as well as too great tone.

Some late authors, have gone so far as to point out the exact situation of this diseased action.

Royer, Collard, Falret, and Bayle, think that mental alienation is the result of chronic inflammation of the membranes of the brain; more especially, of the arachnoid and pia mater. And Falret engages to prove, that lesions of the membranes, and of the brain itself, as inflammation,

hardening and softening, observed in the insane, are sufficient to explain the symptoms of mental diseases—that they are not the effects of these diseases, as many physicians conceive, but that they are the real causes.

Dr. Scipio Pinel, assigns congestion or inflammation of the encephalon as, in most cases, the cause of the alienation of mind; and adds, that we ought, in some cases, to look for the cause, and morbid appearances in other parts of the nervous system.

That the proximate cause of insanity must consist in some very slight derangement of organization, is evident; for the exercise of the intellectual powers must be performed without much movement in the substance of the brain. Were it not so, the disease would be unsusceptible of cure; for the nervous substance once altered to a certain degree, is incapable of returning to a healthy state. It is therefore not to be wondered at, that in the early stages of the disease, we are unable to trace any appearances peculiar to it.

In concluding this subject, I may observe, that the intellectual organ appears to be liable to peculiar diseases, dependent on the faculties over which it presides; and of which, our knowledge has not as yet extended beyond the symptoms. We have not been able to discover the nature of the change, the proximate cause of insanity; but we have every reason to believe, that it has its seat in the brain; for changes in this organ and its coverings, are more

frequent in it than in any other disease; and these changes are most probably, consequences of the proximate cause of the primary cerebral disorders. They are generally speaking, vestiges of increased vascular fulness, either congestive or inflammatory; and these changes may be regarded as producing the secondary affections so often occurring, such as palsy, and chronic irritation of the brain.

This diseased state of the brain, giving rise to insanity, may in some cases, be so far secondary, that it is called into action by a morbid state of the abdominal viscera, including the alimentary canal, the liver, the uterus, or other organs; but in whatever it may consist, it is not until the brain is implicated in the morbid action, that insanity is unequivocally manifested.

CHAPTER XIX.

CRIMINAL RESPONSIBILITY.

It is well known that man, in his sound mind, can deliberate upon the moral relations and probable results of his actions, as well as appreciate the causes which influence his judgment, and lead to the formation of those resolutions which are most conformable to his reason; in a word, that he is a responsible agent. But it is also well known, that there are many causes which disorder the understanding, change the natural feelings and affections, excite unusual passions and propensities, and overturn all liberty of action.

The degree of influence which these causes exercise upon the mind, is a subject of the utmost importance, and one which imperatively demands attentive consideration.

The occasions upon which a medical man may have to give evidence, as to the condition of the mind, are various. Thus, an individual makes a will, which may be disputed by his relations,—was the testator at the time of making his will, in a state of sound mind? Another person squanders his property, or is accused of doing so,—is he competent to manage his own affairs? Or perhaps a dreadful crime is committed, and the question arises—is the prepetrator in the possession of his sound mind, so as to make him responsible for the act?

Such are a few of the many questions, relating to the mind, which arise in a court of law; and concerning which, the opinion of the medical practitioner is required. But, as they are fully treated of in the many works on medical jurisprudence, and as the limits of so general a work as the present, will not permit of my doing more than calling your attention to the subject, I shall confine myself to the consideration of criminal responsibility.

LEGAL TEST OF RESPONSIBILITY.

The existence or non-existence of the consciousness of right and wrong, in the mind of a person at the time of committing a crime, is the only test of the plea of insanity, recognised by the law of England.

In the answers of the judges to the questions propounded by the House of Peers, shortly after the trial of M'Naughten, it is declared, that to establish a defence on the ground of insanity, it must be clearly proved that the accused party, at the time of committing the act, was labouring under such a defect of reason from disease of the mind, as not to know the nature and quality of the act he was doing; or if he did know it, that he did not know he was doing wrong. So that the question for the jury is this simple one,—had the individual accused a sufficient degree of reason, to know that he was doing an act that was wrong?

The law, however, makes a just distinction between a knowledge of what is lawful and unlawful, and a knowledge of what is *morally* right and wrong, in deciding as to criminal responsibility. The conviction of a maniac's soundness on certain subjects, is based, in part, on the moral aspect in which he views these

subjects; for it would be folly to consider a person rational, in reference to his parents and children, while he labours under the idea that it would be doing God's service to kill them, even though he may talk rationally of their characters, dispositions, and habits of life; and be, at the same time, fully convinced that he is acting contrary to the laws of man, and amenable to them.

Hadfield, who was tried for shooting at George III., and acquitted on the ground of insanity, knew that in firing at the king he was doing what was contrary to law, and that the punishment of death was attached to the crime of assassination; but the motives which induced him to commit the crime, were the supposed commands of God, and the belief that even though killed by man, he would at once be received in heaven for his obedience.

Again, Martin the incendiary, admitted that he knew that he was doing wrong according to the law of man, when he set fire to York Cathedral; he was conscious that the act was illegal, but he said he had a command from God to do it.

There can be no doubt that this test is a reasonable one, for the mind of the accused party, must be either *capable* or *incapable* of distinguishing between right and wrong; nor do those who most loudly exclaim against it, do so on other grounds, than the difficulty which attends its practical application.

Some philosophers, it is true, declare that the

question of moral responsibility, can only be decided by a reference to "the general organization of the brain;" while others assert that "difference of conduct arises solely from difference of cerebral organization;" and that "to talk of responsibility, and of the necessity of the punishment of one who, falling into temptation, had given way to a predisposition for taking possession of whatever he could lay his hands on, would be quite as irrational as to flog a man at the cart's tail, for having become infected with scarlet fever." These doctrines do not require to be refuted, since they carry absurdity in their very face.

Many of those, however, who admit the existence in the healthy mind of the moral principle, deny the practicability of applying its loss as a test of the irresponsibility of the criminal, in cases where the plea of insanity is set up, and bring forward many weighty reasons against its being adopted.

But before we discard a test whose *abstract correctness* is allowed to be just, we ought to be prepared with another that can be applied with greater facility and practical advantage, or otherwise our endeavours to settle this difficult and important point will be rendered useless.

The test of the presence of delusion has been by many proposed as a substitute, and might be employed in most cases in which the intellectual faculties are disordered. It would, however, be found utterly useless in exculpating that numerous class of cases in

which criminal actions are the result of mental imbecility.

But to suppose that crime and delusion are incompatible, that is to attribute all the criminal actions of insane persons to their diseased mind, is about as absurd as the doctrine which has sometimes been broached, that all crime is the result of partial insanity.

That the insane mind is not always deprived of the power of moral discernment and self-government, but on many occasions is perfectly rational, and displays the exercise of a sound mind, is one of those facts now so well-established, that to question it would be the height of ignorance and presumption. And the endeavours of many medical men, under the guise of science, to envelop within the irresponsibility of real insanity, eccentricity of conduct and whimsical notions, cannot be regarded with too much reprehension, as opening a wide gate for the commission of crime; and thereby inflicting injustice on society, that an individual may be protected; and also, as having a most injurious effect upon the interests of those who really labour under this dreadful malady, by rendering the law unwilling to recognise their irresponsibility.

"An intriguing, unruly madman," says Dr. Winslow, "was detected with a piece of iron, which he had contrived to shape like a dagger; into this iron he firmly fixed a handle. This weapon was taken away from him; he immediately became excessively abusive, and was placed under restraint. After this, he was more violent, and

uttered the most revolting imprecations, and in a fit of fury, exclaimed to the keeper—'*I'll murder you yet; I am a madman, and they cannot hang me for it!*' "

When Martin set fire to York Minster, a conversation took place among the inmates of a neighbouring madhouse relating to the circumstance. The question discussed was, whether Martin would suffer the extreme penalty of the law for the crime. Various opinions were expressed. In the midst of the conversation, one patient, apparently as mad as the rest, exclaimed, "he will not be hanged,—of course he will escape." "For what reason?" asked several voices. "They cannot hang him," replied the lunatic, "because he is mad,—*he is one of ourselves!*"

"I remember," says Sir William Ellis, "a patient telling me, in a fit of passion, that if he killed me, he knew he should not suffer for it, *because he was mad.* From my knowledge of the man's disposition, I had no fear of such a catastrophe; but if violence be committed under such circumstances, is it consistent with common sense that the man should be considered an irresponsible being because he happens to have some erroneous notions about property, and fancies that he is entitled to property which belongs to another?"

Another test has been proposed by a writer in the "British and Foreign Medical Review," namely, whether or not the individual had at the time *any proper control over his actions?* But in thus shifting the test from the intellect to the will,—from the knowledge of right to the power of acting right, he has merely

changed the difficulty; since it is not more easy to ascertain a man's abstract knowledge of right and wrong, than the exact amount of self-restraint which he possesses.

The difficulty complained of in the application of the test of the knowledge of right and wrong, may, I think, be surmounted by a close and searching examination of the previous history of the individual accused, of the nature of the act in question, and of the probable motives which may have influenced him; as well as of his conduct immediately before and after the commission of the crime for which he is tried.

Dr. Robertson, in the new journal of Psychological Medicine, makes the following sensible remarks on this subject. "As with the reason, its loss can alone be decided from the action of the mental power it directs, namely, the intellectual; so also with the moral principle, can its loss only be deduced from the action of the mental powers it guides, namely, the moral, or as they are also termed, the desires and affections. The loss of the power of comprehension, the presence of a hallucination, &c., are universally and justly received in evidence that the reason is lost or impaired. And so must, by a parity of reason, total disorder of the moral powers, or perversion of one or more of the desires and affections, be received as proof that their guide, the moral principle or conscience, is lost or impaired. But as any single or absurd notion or false logic, would by no one be admitted as proof that the reason was lost; so likewise can no single unprinci-

pled act or vicious couduct, be admitted in evidence of the loss of the moral principle."

Mankind are apt to make their own notions of morals the standard by which they measure the actions of others; and to consider that any step, much beyond the bounds which they have marked out, as the limits *within* which vice may be indulged in with comparative impunity, is to be attributed to insanity. "The man must have been mad, or he would never have done it," is the exclamation one hears so frequently, on the occurrence of any unusual or startling crime. It is, however, by common sense only (which, by-the-way, seems to form but a small ingredient in metaphysical disquisition), aided by a tolerable share of the intelligence of the times, that will prevent in practice any gross misapplication of these principles; and that will enable us to decide, how far any individual act is the result of the loss of the consciousness of right and wrong, or the simply yielding to the tempter's power in the angry storm of passion, or the still more sinful nurture of deadly and malevolent feeling.

VIOLENT EMOTION AND PASSION.

It is admitted by legislators, that offences committed during the mental agitation produced by

the operation of violent emotion, have not the same moral character, as when they are prepetrated while the mind is calm and unbiassed. Thus the law regards every engagement which may have been entered into, while under the influence of bodily fear or terror, as null and void. Under similar circumstances also, the act of homicide is not regarded as a capital offence.

It frequently happens, that sudden transports of fury are but the first violent manifestations of pre-existing insanity. The person affected, feels himself influenced by strange and unusual impulses, and manifests sundry inconsistencies in his disposition and conduct; it is not, however, until some accidental opposition to his will, or some other cause of excitement be offered, that his insanity becomes apparent.

M. Falret, in his treatise on Hyponchondriasis, relates the following case, which strikingly illustrates this fact. "A man, aged forty-five years, became suddenly subject to violent fits of jealousy, and having one night seen his wife conversing with one of his neighbours, he imagined that she was faithless to him—he said nothing to her at the time, but suffered her to retire quietly to rest, and when she had fallen asleep he went and stabbed her to the heart. The next morning he went and delivered himself up to the judicial authorities, and declared his crime. Upon his trial for the murder, notwithstanding his assertions that he was perfectly in his

senses at the time he committed the deed, and that he did it solely because she merited death, he was pronounced to be insane. Sometime afterwards the justice of this sentence became apparent, for he committed suicide, having previously written a paper, stating, that his only motive for not putting an end to his own existence at the same time he murdered his wife was, that he preferred receiving the punishment he deserved at the hand of the public executioner; but that since the law had not awarded so just a retribution, it remained for him to rid society of so guilty a being as himself."

In instances however, where the uncontrollable violence of passion alone is urged in extenuation of criminal offences, the case is materially altered, as the individuals are well aware of the consequences, as well as the nature of their actions, and are in general capable of exercising a proper degree of self-restraint.

M. Bellart, an advocate of celebrity in France, upon one occasion endeavoured to prove that murder may be committed in such a state of mental agitation from passion, that the individual is hurried on by the resistless impulse of his frenzy, and that he ought therefore, to be considered irresponsible for his acts. He says, "There are different kinds of madmen,—as those whom nature has condemned to the perpetual loss of reason, and those who merely suffer from a temporary aberration of intellect; in other respects, there is no difference between the delirium

of years and the delirium of a day or an hour, except in the duration."

Hoffbauer, also, in his treatise upon legal medicine, maintains that the strong emotions and passions of the mind, may cause a temporary aberration of intellect, during which, the individual is unable properly to direct his reasoning faculties to the relations of things; and if, during this paroxysm, he commit a crime, he is not responsible.

I cannot, however, agree with these authors, in looking upon the violent ebullitions of uncontrolled passion as identical with mental unsoundness, or as annulling the guilt attached to criminal offences; it is true that there exists a striking similarity between them, but it must always be borne in mind, that the first is capable of being restrained within bounds by the dictates of reason; while mental unsoundness is dependent upon some physical disorder of the brain, by which the free agency of the will is permanently deranged.

"Man," says Mr. Barlow, "has, in the resources of his own nature the antagonist power, which, if properly used, can set at nought the evils, aye, and the so-called irresistible propensities, too, of the bodily organism. So nicely balanced indeed, is the machine, that a grain can turn it to either side, but it is in the power of the will to cast that grain. Cast on the side of instinct, the propensity becomes passion, and the passion—crime, and both are for the time insanity; for when once the intelligent will has

lent its aid to the blind impulses of the body, whether diseased or in health, it becomes only a question of time whether the individual is to be called insane and placed under restraint or not. The man who recovers quickly from his madness is called a sane man, though during the few preceding minutes he may have exhibited the flushed face, the rapid and violent gestures, and the unreasoning conclusions of the maniac.

But strange to say, if this be very frequent, he is excused, and considered innocent of the crime he has committed, exactly because he has perpetrated the greatest of all crimes, by delivering over his God-like intellect to be the sport of that brute nature, which it ought to regulate."

DRUNKENNESS.

The state of the mind which is induced by indulgence in alcoholic liquors, bears a strong resemblence to mental alienation, not only in its character, but also in its cause. It is not, however, regarded by our law as affording any excuse or palliation for criminal offences, committed while under its influence, even though the individual might not have contemplated the crime when sober; nor indeed, are civil contracts entered into while in a state of

voluntary intoxication, disputable on the ground of being the result of an unsound state of mind.

Alison, in his Principles of the Criminal Law of Scotland, makes some very just observations upon this subject.—"Drunkenness," says he, "is no excuse for crime, but on the other hand, if either the insanity has supervened from drinking, without the panels having been aware that such indulgence in his case leads to such a consequence, or if it have arisen from the combination of drinking with such a crazed or infirm state of mind, or a previous wound or illness, which renders spirits fatal to his intellect, to a degree unusual in other men, or which could not have been anticipated, it seems inhuman to visit him with the extreme punishment of the law, which was suitable in another case."

DELIRIUM TREMENS.

A broad distinction ought to be made between the immediate effects of drunkenness, and its remote consequences. It must be recollected, that long-continued habits of intoxication are apt to produce actual and permanent insanity,—and that in fact, drunkenness is one of its most fruitful causes; therefore, when criminal actions have been committed by persons in a

state of delirium from the remote effects of drinking as in delirium tremens, their offences lose their criminality, and the individuals themselves are regarded as insane. It ought also to be borne in mind, that although excessive drinking be the remote cause, yet the attack of insanity itself, is produced by the privation of the accustomed stimulus.

Thus, in the case of Alexander Drew, who was tried in America for murder, an acquittal took place, on the ground of insanity. The judge who tried the case, arrested it in its progress, and said: "We are of opinion that the indictment cannot stand. The prisoner, at the time of committing the offence, was unquestionably insane; and the question at the bar is, whether insanity, whose remote cause is intoxication, is or is not a competent excuse for homicide, in a court of law, committed by the party while so insane, but not at the time intoxicated, or under the influence of liquor. We are clearly of opinion that insanity is a competent excuse in such a case. In general, insanity is an excuse for the commission of every crime, because the party has not the possession of that reason which includes responsibility. An exception is, when the crime is committed by a party while in a fit of intoxication; the law not permitting a man to avail himself of the excuse of his own gross vice and misconduct, to shelter himself from the legal consequences of such crime. But the crime must be the immediate result of the intoxication while it lasts, and not, as in this case, be the remote consequence, superinduced by the

antecedent exhaustion of the party, arising from a gross and habitual drunkenness."

A similar decision was given at the Central Criminal Court a year or two ago, on the trial of Captain Johnson of the ship "Tory," for several atrocious murders which he had committed at sea while under the influence of delirium tremens.

SOMNAMBULISM.

It is a much disputed point whether individuals who are subject to somnambulism should be held as irresponsible for acts committed while under its influence.

The opinion of Hoffbauer is, that they should be considered as irresponsible for their criminal offences, as they act from impulse merely; but that they should nevertheless be subjected to certain penalties, and ought to be made to repair the damage occasioned by them while under the influence of the disease.

Surely this opinion expresses in itself a contradiction? If he considers the individual to be irresponsible, why does he advocate the infliction of punishment?

M. Fodéré goes much further than Hoffbauer, and pronounces sentence against all somnambulists for the

offences which they may commit, for the following reason: "The man," says he, "whose conscience is always conformed to the due performance of his social duties, does not belie himself, even in his slumbers; while he whose thoughts are directed towards the commission of crime, and the gratification of revenge, reveals, during his sleep, the inmost recesses of his soul."

M. Malle very properly remarks: "That to make a person responsible for acts committed during his sleep, is to imitate the conduct of a Roman emperor, who condemned a person to death because he dreamt that he had killed him; thus punishing as a crime, an idea which had occupied his mind during sleep."

The elements of the acts of a somnambulist, are owing to the sportive influence of the imagination; and have no necessary connexion with the ideas which occupied his mind during his waking hours. He but realises the visions of his sleep, and has no more control over his actions while in a state of somnambulism, than he has over the direction of his ideas in a common dream. As in a dream every fancied event assumes a distinct place in his mind, and he acts as if every circumstance actually occurred. A case lately came under my notice, of a young man who imagined that, by some means or other, he had become involved with the police, and that they entered his room at midnight to hurry him to prison; he started up and seized a razor, and asserted that he would sooner cut his throat than go; and, upon his imagined assailants

continuing to molest him, he actually inflicted a wound upon his throat. The pain awoke him in time to obtain proper assistance, or he might have bled to death.

Mr. Taylor, in his work on Medical Jurisprudence, mentions the following case: "Two persons who had been hunting during the day, slept together at night. One of them was renewing the chase in his dream, and imagining himself present at the death of the stag, cried out—'I'll kill him! I'll kill him!' the other awakened by the noise, got out of bed, and by the light of the moon beheld the sleeper give several deadly stabs with a knife, on the part of the bed his companion had just quitted. Suppose a blow given in this way had proved fatal, and that the two men had been shown to have quarrelled previously to retiring to rest!"

Persons upon being suddenly awakened, have occasionally deprived others of life, while under the influence of terror. The following case is narrated in the "British and Foreign Medical Review:"—"A pedlar, who was in the habit of walking about the country with a sword-stick, was suddenly awakened one evening while lying asleep by the road-side, by a man seizing him by the shoulders and shaking him roughly. The pedlar, in his fright, drew his sword, and stabbed the man who assailed him, who afterwards died. The pedlar was tried for manslaughter: his irresponsibility was strongly urged by his counsel, on the ground that he could not have been conscious in his half-waking

state of terror; this was strengthened by the opinion of the medical witnesses; he was, however, found guilty."

Judging from these, and many other instances which I might mention, I think that the acts of a somnambulist, committed while under the influence of his disease, ought always to be excused; but, as these symptoms can be so easily simulated, suspicion should be entertained in every case where the accused has never been known to be so affected; and more especially, if the deed be one by which he might reap any benefit, or gratify any malignant passion.

IMBECILITY OF MIND.

Imbecility is defined by Dr. Ray, as "an abnormal deficiency, either in those faculties that acquaint us with the qualities and ordinary relations of things, or in those which furnish us with the moral motives that regulate our relations and conduct towards our fellowmen; and frequently attended with excessive activity of the animal propensities."

Georget further observes, "In hospitals for the insane there is always a certain number of imbeciles, who do the coarser work of the house, or serve as domestics and assistants to the regular officers. They

become sufficiently intelligent at last to perform their duties well, to sweep the courts, carry burdens, move machines, execute simple commissions, know the use of money, and procure various enjoyments. But they have no idea, or a very imperfect one, of society, laws, morality, courts and trials; and though they may have the idea of property, they have no conception of the consequences of theft. They may have been taught to refrain from injuring others, but they are ignorant of what would be done to them if guilty of incendiarism or murder. Indeed, it is well known how common theft is among imbeciles and idiots, and for a very obvious reason. Some of them have no conception of property, nor of the distinction of *meum* and *tuum*; their conduct is actuated solely by the fear of punishment, when capable of experiencing this sentiment, and by their own desires. Others have some notions of property, but neither a sense of morality, nor a fear of punishment furnishes motives sufficiently powerful to prevent them from stealing. The sentiment of cunning, too, may be very much developed, while the other faculties are more or less deficient. Among the lower orders of society are many imbeciles a little more intelligent than these, and not considered as utterly devoid of understanding, who, nevertheless, have but vague and imperfect notions of social duties and of justice. They engage in occupations that require no great extent of intellect, and even in the simplest of the mechanic arts. If they do not pass among their acquaintances for imbeciles, they are at least regarded

as singular beings, with feeble understandings, and are teased and tormented in innumerable ways. Many of them, for want of some powerfully restraining motive, indulge in drinking, and become lazy, drunken, and dissipated, and finally fall into the hands of justice in greater numbers than is generally suspected. They steal adroitly, and hence are considered as very intelligent; they recommence their offences the moment they are released from confinement, and thus are believed to be obstinately perverse; they are violent and passionate, and the slightest motive is sufficient to plunge them into deeds of incendiarism and murder. Those who have strong sexual propensities, soon become guilty of outrages on female chastity."

Criminal responsibility pre-supposes the existence of the knowledge of right and wrong; and, as this knowledge may be affected, either by derangement of the intellectual faculties, or by mental deficiency, it is of importance for us in the present instance, to see how the question is influenced by the lighter forms of mental imbecility.

"On the 14th of May, 1843, a young man, John Barclay, was executed at Glasgow, for the murder of Samuel Neilson, for whom he had previously shown some affection. He took from him three one-pound notes and a watch, to obtain possession of which seems to have been the cause of the murder.

So little sense had he of having done wrong, or of his own situation, that he hovered about almost

without disguise, and, while going to spend part of the money with the first person he spoke to, he dropped first one and then another note at his feet, as a child would have done. When questioned, he could see no difference between killing a man and killing an ox, except that he 'would never hear him fiddle again;' and so little did he know of the nature of the watch, that he regarded it as an animal, and when it stopped from not having been wound up, believed it had died of cold from the glass being broken. So obvious was Barclay's mental deficiency, that the court of justiciary, before whom he was brought, declined proceeding to his trial till it was decided by medical evidence that he was a fit subject for trial. In his parish, he was familiarly known as 'daft Jock Barclay;' and the clergyman, who knew him well, 'always regarded him as imbecile, and had never been able to give him any religious instruction, and did not consider him a responsible being.' Notwithstanding the fact that Barclay's weakness of mind was recognised by all parties, from the judge downwards, and that the jury strongly recommended him to mercy on that account, he was condemned and executed."

An attentive examination of the circumstances of this case, must lead us to the conclusion, that this individual was unjustly rendered responsible for his actions. His whole previous history shows him to be of weak mind, and that in a more than ordinary degree, because, amongst persons of the lower classes,

the idea of "daftness" does not attach itself to a person who possesses a capacity for the ordinary occupations of life.

It is also clear from the evidence, that his sense of right and wrong was wanting, since we cannot consider that man responsible, who sees no difference between killing a man and an ox; and who, notwithstanding the fearful position in which he is placed, feels no sorrow at the offence he has committed, further than that he will never hear him "fiddle again." The extensiveness of his reasoning powers, may be inferred from the circumstance of his believing a watch to be a living animal, which died of cold from the glass being broken—as well as from the fact, that the clergyman of his parish, who knew him familiarly, could never make him understand the slightest rudiments of religious education.

In all such cases, proofs of the imbecility of mind, must be drawn from an investigation of the whole life and character of the individual, and not from a few isolated facts; and had this been done in the case of Barclay, it is clear that he would have been held irresponsible.

HOMICIDAL INSANITY.

While on the subject of criminal responsibility, it is necessary that I should mention the plea of homicidal impulse, which is sometimes made in cases, where murder has been committed, without any intellectual aberration being observed.

According to Esquirol, the facts hitherto observed indicate three degrees of homicidal insanity.

In the first, the propensity to kill is connected with absurd motives, or actual delusions. The individuals would at once be pronounced insane by everybody. Cases of this description are not uncommon, and they create no difficulty whatever.

In the second class, the desire to kill is connected with no known motive. It is difficult to suppose that the individual had any real or imaginary motive for the deed; he merely appears to be led on by a blind impulse.

In the third class, the impulse to kill is sudden, instantaneous, unreflecting, and uncontrollable, *(plus forte que la volonte)*. The act of homicide is perpetrated without interest, without motive, and often on individuals who are most fondly loved by the perpetrator.

All the cases which came before Esquirol, had three characters in common,—an irritable constitution; great excitability, singularity, or eccentricity of character; and, previously to the manifestation of the propensity, there was a kind, gentle and affectionate disposition. As in other forms of insanity, there was some well-marked change of character, or in the mode of life. The period at which the disorder commenced and terminated, could be easily defined, and the malady could be almost always referred to some moral or physical cause. In two cases, it was traced to the result of puberty; and in four, to the power of imitation. Attempts at suicide preceded or followed the attack; all wished to die, and some desired to be put to death as criminals. In none of these cases, could any motive for the act of homicide be discovered.

In distinguishing between this state and that of the insane criminal, he enumerates—

First, The want of accomplices in homicidal insanity. Little or no reliance, however, can be placed on this fact, since many of the most atrocious felons have had no confidants in the perpetration of their crimes; consequently, while the presence of accomplices would at once annul the plea of insanity, the converse can, by no means, be received in support of that plea.

Secondly, The criminal has always a motive; the act of murder is only a means for gratifying some other more or less criminal passion, and it is almost always accompanied by some more or less criminal

act. The contrary, says Esquirol, exists in homicidal insanity. Here again, objections may be raised to the admission of this as a test of the presence of insanity, because the acts of insane homicides are by no means characterized by the absence of motive. It is true, that the motives by which they are sometimes influenced, are such as would have no effect upon a sane mind. But on the other hand, it is frequently difficult, if not impossible to discover the motives which have governed many criminals. In this case no one would think of taking the *non-discovery* for proof of the *non-existence* of motive.

Thirdly, The victims of the criminal, are those who oppose his desires or wishes. The victims of the insane homicide, are among those who are either indifferent or who are most dear to him.

Fourthly, The criminal endeavours to conceal, and if taken, denies the crime; if he confesses it, it is only with some reservation, and when circumstances are too strong against him; but he commonly denies it to the last moment. It is the reverse with the insane homicide.

With regard to these two latter tests, it must be obvious to every one, that taken singly they are not of the slightest value, and even taken collectively, can only be received as corroborative evidence of a very slight nature.

The following case may be taken as a good illustration of this form of insanity:—A man, named Greensmith, was charged with the murder of his young chil-

dren. He was a person of industrious habits, and an affectionate father; but having fallen into distressed circumstances, he destroyed his children by strangling them, in order, as he said, that they might not be turned into the streets. The idea only seized him upon the night of his perpetrating the crime. After he had strangled two of his children in bed, he went down stairs, where he remained some time; but thinking that he might as well suffer for all as for two, he returned to the bed-room, and destroyed the other two, whom he had left alive. He shook hands with them before he strangled them. He left the house, and went to a neighbour's, but said nothing about the murder, until he was apprehended the next day, and taken before the coroner, when he made a full confession. Not one of the witnesses had ever beheld the slightest indication of insanity about him. He made no defence, but several humane medical practitioners came forward, and deposed that he was insane. The surgeon of the gaol said, that the man was feverish, complained of head-ache, and had been subject to disturbed sleep and sudden starts ever since the death of his wife, a short time before. He spoke of the crime he had committed without the slightest excitement, and the witness said he had heard enough to satisfy him that the prisoner could not have committed such a crime, and be in his sane mind. Dr. Blake, physician to the Nottingham Lunatic Asylum, said he was satisfied that the prisoner laboured under a *delusion of mind.* The prisoner's grandmother and

sister had been under his care; the latter for entertaining a similar delusion, namely, that of destroying herself and children. The judge declined receiving this evidence, and under his direction, the prisoner was found guilty, and sentence of death was passed upon him. By the active interference of Dr. Blake and others, he was respited on the ground of insanity.

In this case, the facts adduced at the trial would seem to justify the pardon which was afterwards granted, as there is but little doubt that the individual was out of his senses at the time he committed the act. A strong hereditary tendency to mental derangement existed in his family, and he had been for some time previously to the commission of the crime, suffering under great mental agitation from grief and anxiety. He also took no precautions to avert the punishment which he knew would be sure to overtake him, but at once makes a full confession, and that without any hope of mercy. There is no doubt, that he knew at the time, he was committing an offence against the laws of the land; for after having murdered two of his children, he returned and murdered the others, considering that he might as well suffer for all as for two. He, however, did not perceive the *moral evil* of his conduct, but acted under the idea that what he did was for their advantage, in removing them from troubles and griefs like his own. This view of the case is borne out by the entire absence of malice, or ill-will displayed by him throughout; since he actually

shook hands with his children, before he strangled them.

On contrasting this case with a more recent one, that of a man named Ovenstone, who was tried for an attempt to murder, some remarkable points of difference may be noticed.

To recapitulate Ovenstone's case, it appears that he was a man of irritable and passionate temper, but was always looked upon as very charitable and good hearted. Since the year 1844, he had been unfortunate in business, and had lost a considerable sum of money previously to the transaction which brought him into collision with his intended victim.

Having been appointed official assignee in a bankruptcy case, he became responsible in that character for a sum of money to a Mr. Crawley. As this was not paid for at the time, some portion of his goods were seized and sold to pay the debt.

Immediately after the sale, on the very same afternoon, the prisoner called upon his creditor, and shot him in the face with a pistol he had concealed for the purpose; and then, attempted to evade the punishment due to his offence by shooting himself, but did not succeed in causing death.

This individual's mind, no doubt, was bitterly exasperated by his repeated losses; and this exasperation, probably, reached its climax, when he found his goods were seized in execution at the suit of Mr. Crawley; but the supposition, that the crime was

the result of insanity, is not at all supported by any evidence adduced at the trial.

In the history of insanity, it is well known, that the nature and disposition undergo a marked and complete change. But it almost always happens, that this change is *gradual*, and that the unnatural conduct induced by it, is displayed towards the patient's *near relatives*, or towards those with whom he is brought into *daily contact.* Instead of this being the case, however, all the prisoner's animosity is directed towards that person, from whom he has received *an actual injury.*

It may, however, be urged that there did not exist sufficient motives to induce a man in his sound senses to sacrifice himself for the gratification of his revenge, in the manner that Ovenstone did; and that the improbability of the act being committed under such circumstances, ought at least to be received in corroboration of the plea of insanity. But a man is not the less responsible, because in a fit of passion he permits himself to commit a crime without reflection, or because he is utterly heedless of the consequences of the act; and the mere fact, that the temporary gratification of a particular passion is obtained at a most unwise expense of subsequent suffering, is no proof of the existence of mental derangement.

The doctrine laid down by Lord Erskine, in Hadfield's case, is very applicable in the present instance. "I cannot," says he, "allow the protection of the law to a man who only exhibits violent passions and ma-

lignant resentments, acting on real *circumstances*, who is impelled to evil by no morbid delusions, but who proceeds upon the ordinary perceptions of the mind, I cannot consider that man as falling within the protection which the law gives, and is bound to give, to those whom it has pleased God, for mysterious purposes, to visit with this most afflicting malady. He alone can be emancipated, whose disease (call it what you will) consists, not merely in seeing with a prejudiced eye, or with odd and absurd particularities, differing, in many respects, from the contemplations of sober sense upon the actual existence of things, but he only whose reasoning and corresponding conduct, (though governed by the ordinary dictates of reason), proceed upon something which has no foundation or existence."

The attempt to put an end to his existence, after having, as he thought, gratified his revenge, was urged as a convincing proof of the presence of insanity; but it is quite unnecessary to adduce instances, to prove the utter fallacy of such an argument.

Religion, morality, self-love, and self-interest, are all opposed to it, yet cases are continually occurring in which there exists no other motive for the perpetration of the offence than a distaste for life, or dissatisfaction with surrounding circumstances, added to an utter regardlessness of future consequences.

In the present instance, it was not contended that the prisoner laboured under any delusion,—indeed, it was acknowledged that he was quite aware of the

nature of the act, of its unlawfulness, and of its moral turpitude,—his irresponsibility is based on the doctrine of irresistible impulse merely: a most dangerous doctrine, truly, and one which is not borne out by facts. The entire escape of Oxford, was confessedly most mischievous; and he himself appears to have been fully aware of this, for on hearing of the attempt of Francis to assassinate the Queen, he observed, *that had he been hanged, a similar offence would never have been attempted.*

In the case of Touchet, who was tried for murder, the prisoner, a young man, entered a shooting-gallery in Holborn, took up a pistol, and deliberately fired at the proprietor of the gallery while his back was turned, thereby inflicting a wound which ultimately caused his death at the end of a year. The defence was insanity, founded on the absence of motive for the act, and the presumption of hereditary taint. After having fired the pistol, he said he did it on purpose, for he wished to be hanged. There was no evidence whatever, of intellectual aberration. He referred to a case of a man who had killed another at Brighton, and said he wished to do something of the same kind, in order to get himself hanged.

In another case which I may mention, that of Martha Brixey, the prisoner was a quiet inoffensive girl,—a maid-servant in a respectable family. She had laboured under disordered menstruation; and, a short time before the occurrence, had shown some violence of temper about trivial domestic matters. This was

all the evidence of her insanity, the rest was furnished from the act of murder,—a species of evidence certainly of a dubious nature. She procured a large knife from the kitchen, upon some trivial pretence, and while the nurse was out of the room, cut the throat of her master's infant child. She then went down-stairs, and told her master what she had done: she was perfectly conscious of the crime she had committed, and showed much anxiety to know whether she would be hanged or transported.

Though there was not the slightest evidence of any kind that either of these two individuals were labouring under any delusion or derangement, they were both acquitted on the ground of insanity.

Such cases obviously partake too much of the nature of crime, to be received in exculpation of murder; and moral consciousness being most undoubtedly and undeniably present, the law of England rightly renders them responsible for their acts. How is it, then, that in the very face of the law, they escaped all punishment? Was it because the jury fancied a lighter punishment than death would be adequate to their motiveless crimes?

In the present instances, the prisoners were possessed of all the sanity which is necessary to subject them to the penalties of the law. The object of penal infliction is to supply an additional motive for abstinence from crime, to those who cannot be withheld from it by moral considerations. And although many contend that it is better to let ninety-nine criminals

escape, than that one person of diseased mind should be sacrificed, I cannot help thinking, that severity in such extremely doubtful cases is the most merciful error of the two in the end. Had Oxford, Touchet, Brixey, Ovenstone, and others been *punished*, whether by death or otherwise, I leave for others to determine, and cannot help thinking, that we should not hear any more of "irresistible impulse" in the production of crime. There can be no security for life, if the consequences of an act may be evaded by metaphysical conjectures on the strength of morbid impulses, and the impossibility of controlling evil passions. There is not a crime for which, with some show of reason, the excuse might not be made—"I did it because I could not help it."

PLATES,

ILLUSTRATIVE OF THE

PHYSIOGNOMY OF MENTAL DISEASES.

EXPLANATION OF THE PLATES.

Plate I.

Eliza A——: A little girl, aged six years, was admitted into Bethlehem Hospital on the 30th August, 1842, labouring under an attack of Mania, of ten weeks duration. The case is remarkable, as presenting well marked features of insanity at so early an age. The cause of the attack was stated to be inflammation of the brain, preceded by convulsions. When admitted into the hospital, her conduct was violent and mischievous, with incoherence of speech; occasionally, however, by strongly arresting her attention, a correct reply could be obtained. The first portrait was taken while in this state; a considerable improvement soon took place in her conduct and behaviour, and she began to pay attention to the directions of one of the patients who took charge of her; but still continued decidedly insane. She was ultimately discharged cured, in about two years time, at which time the second portrait was taken. (See the next plate).

Plate II.

The portrait of the last patient cured.

Plate III.

Robert S——: Aged thirty-eight, a butler in a gentleman's family, was admitted into the Surrey Lunatic Asylum on the 16th Nov., 1841, labouring under an attack of partial insanity, with unnatural propensities. He was sent to Horsemonger-lane Gaol, where he had been imprisoned in consequence of attempting to gratify his unnatural propensities. His conduct was violent and excited, and his language and actions grossly indecent; he also said that he had had criminal desires ever since his youth,—that he had been confined in three different prisons, and that he had been tried in 1820, and in 1841. He died in about two months after his admission, of Phthisis, and exhaustion from long continued cerebral excitement. On examination after death, along with other appearances there was observed a large ulcer in the cerebellum.

Plate IV.

Eliza V——: Aged forty-three, unmarried, a lady's-maid, was admitted into Bethlehem Hospital on the 27th March, 1846, labouring under an attack of Mania, complicated with Hysteria, of two weeks duration. The causes of the malady are stated to have been disappointment in love, and erroneous views on religious subjects. Her temper is passionate and her habits were sober, until within a short period of the attack. On her admission, her conduct was found at times to be very spiteful and unmanageable. Her memory was impaired; she was subject to violent fits of Hysteria, and expressed herself in a very loose and sometimes incoherent manner. Purgatives and tonic medicines were employed in her case, and she was discharged cured, after about two months treatment.

Plate V.

Anne P——: Aged thirty-eight, married, the wife of a book-binder, with three children, was admitted into Bethlehem Hospital on the 14th Oct., 1842, labouring under Mania from childbearing. The disorder commenced about a week previously to her admission, with dancing and excited conduct. A singular cir-

cumstance in this case is, that she is deaf and dumb, and is the wife of a deaf and dumb person. During the prevalence of the disorder, her sister was unable to understand the signs she made use of. After a residence in the hospital of about two months and a half, she was discharged cured. (See the next plate).

Plate VI.

The portrait of the last patient cured.

Plate VII.

Couser D——: A female, aged twenty-three, a domestic servant, was admitted into Bethlehem Hospital on the 14th Feb., 1846, labouring under an attack of Mania, of six days duration. Her bodily health, with the exception of irregularity in the menstrual functions, was good. Hereditary tendency strongly existed in this case, her grandfather and uncle having both died insane. The exciting cause of the disorder, was disappointed love. On her admission she was very restless in her conduct, and incoherent, with confusion of memory.

In the course of a few weeks, she appeared convalescent. The menses, however, had not made

Nº 9.

their appearance; and she suddenly relapsed, and continued insane for about a month, when she again became quiet and rational. In this way, she relapsed three different times. Before her final recovery, she had an attack of erysipelas in her face; and shortly afterwards the menstrual discharge made its appearance, and she appeared quite convalescent. She remained two months longer in the hospital, and was then discharged cured. The second portrait was taken immediately before her discharge. (See the next plate).

Plate VIII.

The portrait of the last patient cured.

Plate IX.

Mary H——: Aged ninety-six, a female confined in the Hanwell Asylum, in whom insanity appeared at a very advanced age. At the time her portrait was taken, her age was upwards of ninety-six years; and, at the time of her death, considerably exceeded one hundred.

Plate X.

Anne B——: Aged forty-five, single, a dress-maker, of sober habits, was admitted into Bethlehem Hospital on the 10th October, 1845, labouring under a fourth attack of insanity, of five months duration. In this case, there was strong hereditary predisposition to insanity. The presumed cause of the present attack, was grief at the death of her father in an asylum. The menstrual discharge was very irregular, but not entirely suppressed. The character of her disorder was partial insanity, with depression, and propensity to suicide; she fancied herself to be forsaken of God, and was continually bemoaning her unhappy condition. During the whole period that she remained in Bethlehem Hospital, she continued in the same miserable state; and was continually attempting to strangle herself: she was also in the habit of eating her fæces, but did not assign any reason for so doing. Her language was frequently very blasphemous; and she declared that she was only feigning insanity.

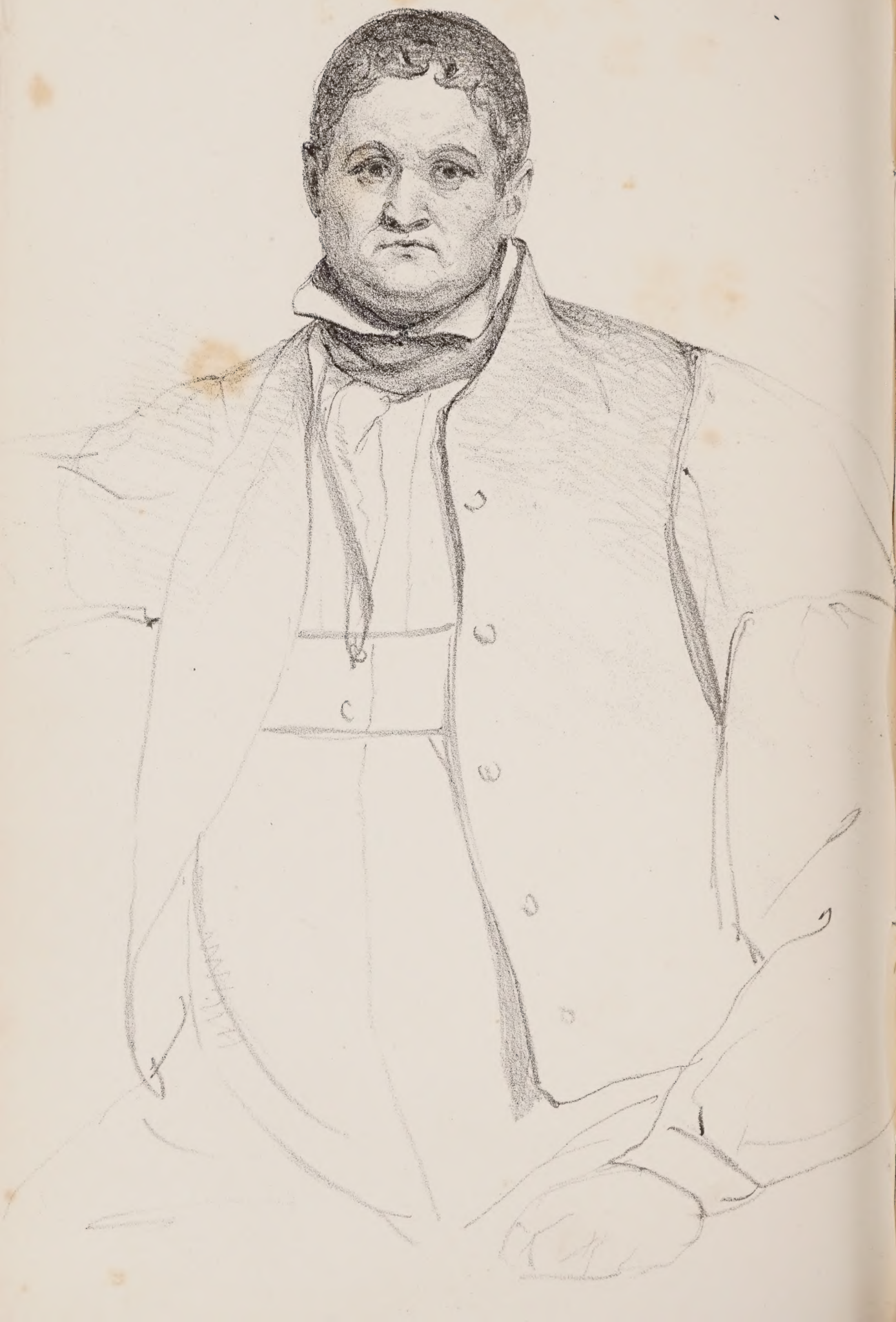


Plate XI.

Richard G——: Aged forty-seven, formerly a labourer, was admitted into the Surrey Asylum labouring under an attack of Monomania; the only delusion under which he labours being, that he has no bottom nor inside, and that he is wasting away, and will be quite gone by night: on every other subject he is quite rational, and makes himself very useful in the wards. The fixed expression of his countenance is very characteristic of the form of insanity under which he labours.

Plate XII.

Martha S——: Aged twenty, the wife of a labourer, was admitted into Bethlehem Hospital on the 15th October, 1841, labouring under an attack of acute Dementia, arising from puerperal causes. She became insane about a fortnight after the delivery of her child, and was at first violent, and even attempted to commit suicide; she, however, in the course of a day or two, became quite silent, and presented all the appearance of a person labouring under acute Dementia. After remaining under treatment for about six

months, she was discharged cured. On her recovery, she declared that she had no recollection of anything that had occured during her illness,—that the whole had been a blank to her. The remedies employed were, laxatives, counter-irritation, the warm bath, and the douche. (See the next plate).

Plate XIII.

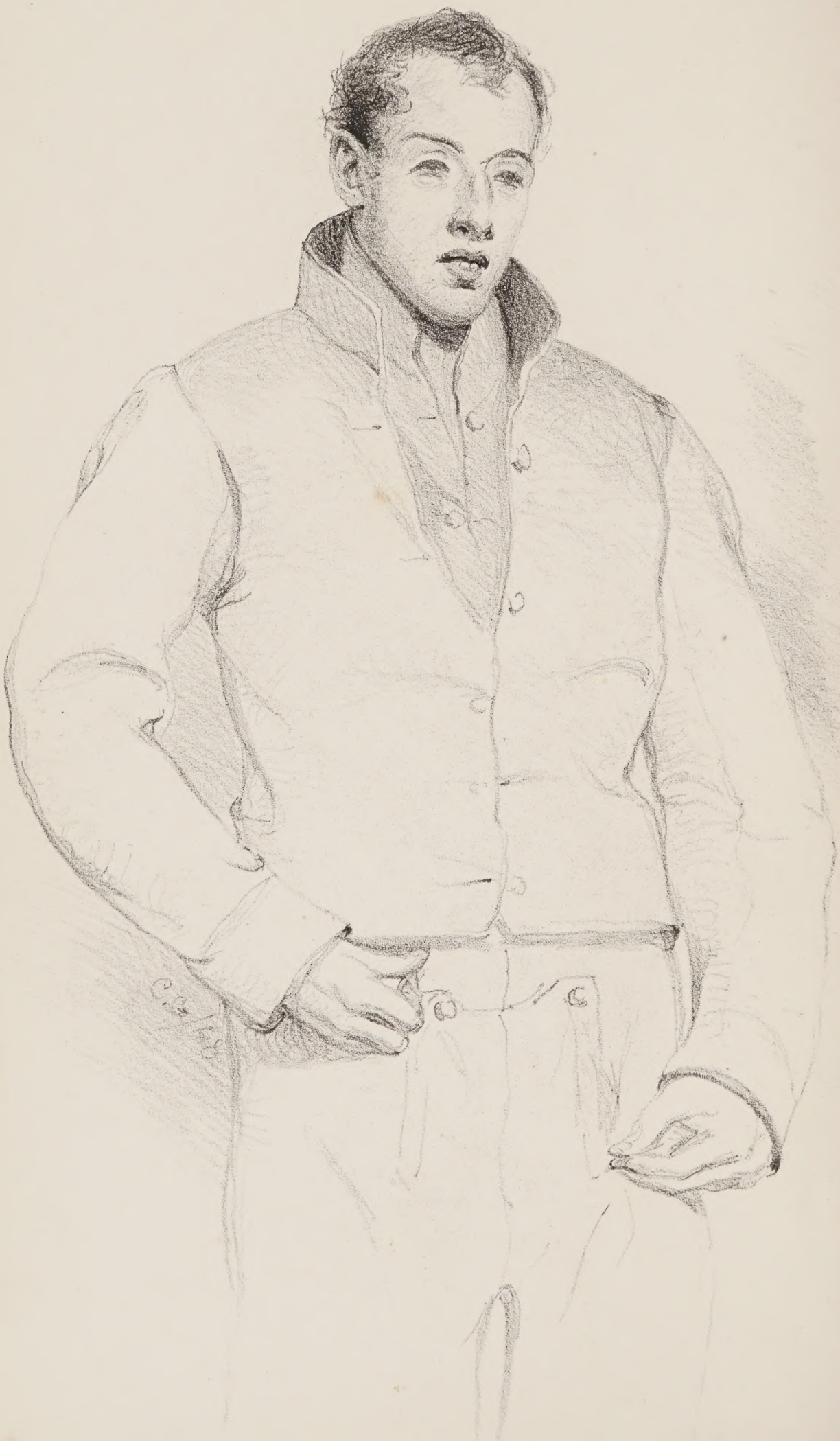
The last patient cured.

Plate XIV.

Jane D——: Aged twenty-three, the portrait of another patient labouring under the acute form of Dementia. The symptoms were precisely the same as in the last case; a cure, however, was not effected.

Plate XV.

John F——: Aged twenty-three, was admitted into the Surrey Lunatic Asylum on the 26th June, 1841, from a private asylum, in a state of Dementia from epileptic fits. In this case, the fits are of very



frequent occurrence, and are generally attended by a disposition to commit acts of violence. A few hours seclusion in his sleeping apartment, however, is generally found to be sufficient to restore him to tranquillity.

Plate XVI.

Thomas B——: Aged twenty-three, single, a patient in the Surrey Asylum in a state of hopeless Dementia. The whole attitude and appearance of this patient is extremely characteristic of the entire absence of mind in the last stage of Dementia.

Plate XVII.

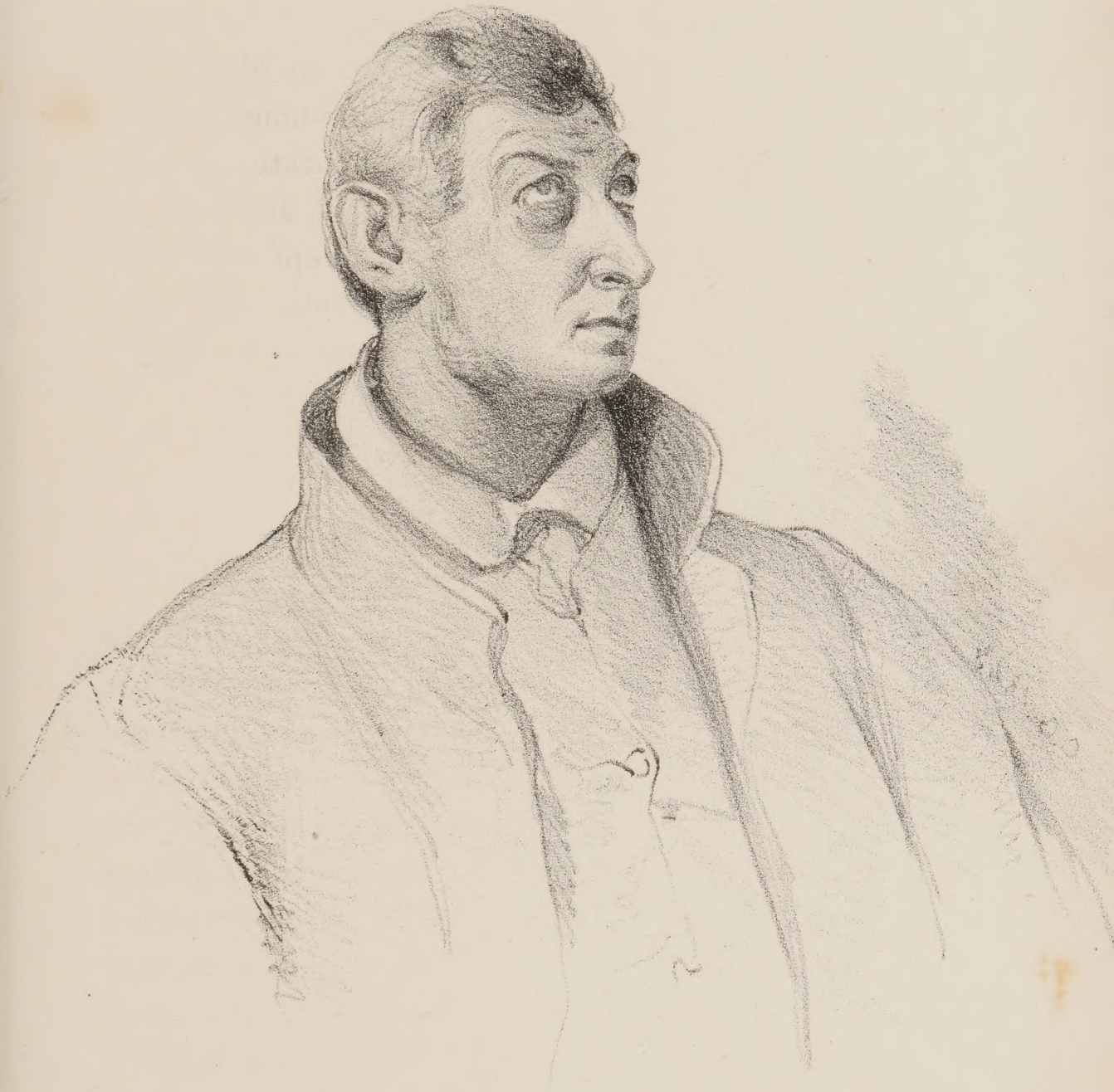
John M——: Aged twelve, idiotic from birth, is dumb, and disposed to mischief; the dumbness, however, is not dependent on deafness, but appears solely to be the result of want of power of attention to the sounds of the voice. This patient is incapable of attending to the calls of nature, or of feeding himself; and if not watched, will put pebbles and straw, &c., into his mouth, and swallow them. His head and body are well formed, and he is able to walk; but holds his body and hands in an awkward manner.

Plate XVIII.

Richard S——: Aged thirty-nine, an idiot from birth, has been all his life in the work-house. This idiot is capable of some degree of education, and is employed in teazing hair for mattrasses, and in turning a mangle. He is very subject to epileptic fits; his head is remarkably small, with a retreating forehead: he is nearly blind, and squints very much.

Plate XIX.

Jonathan R——: Aged thirty-two, formerly a carman, admitted into the Surrey Lunatic Asylum on the 18th June, 1847, labouring under an attack of partial insanity, complicated with general paralysis. In this patient, who was a very sober person, the disorder came on suddenly, about six months previously to the first portrait being taken. He did not manifest any well-marked delusions of grandeur, but used to say he would take possession of his brother's house and business, and also show considerable incoherency in his discourse. When admitted, he spoke with a slight hesitation, but could walk well: his memory was much impaired. The second portrait was taken



about two months after the first, and at this time he had become very much more confused and incoherent; at times, he does not reply when spoken to. The remedies employed were, blisters behind the ears, and at the nape of the neck; but no benefit has been derived from them. (See the next plate).

Plate XX.

The last patient in a still further advanced stage of the disease taken two months after the first.

Plate XXI.

Agnes W——: Aged twenty-nine, married, the wife of a mechanic, was admitted into the Surrey Lunatic Asylum on the 15th August, 1846, labouring under an attack of insanity, complicated with general paralysis. The cause of her insanity is stated to have been grief, on account of the death of her children. When she first came under treatment, her ideas were of a melancholy nature; and her memory was impaired. Soon after her admission she became extremely restless, and fancied that she had immense wealth and numerous children, and that she should have several more before the morning.

At times she was mischievous, and would tear her clothes. On first getting out of bed, she was frequently unable to speak for some time, and did not appear to be sufficiently conscious of what was going on, nor able to occupy herself at all; and would remain quiet for a day or two, and then become very restless. At times she ate very voraciously; at other times there was much difficulty in getting her to take food. The symptoms of general paralysis gradually increased, until she died in the very last stage, with gangrenous ulcers in the back and nates. This portrait was taken about a week before her death.

Plate XXII.

Ellen T——: The portrait of a patient in the Surrey Asylum, labouring under Dementia of many years standing. This patient's history is rather a sad one: she was the daughter of a gentleman of fortune, and became insane from a blow she received by a fall from horseback; shortly after this her father died a ruined man, and his daughter was sent, at the expense of the parish, to a pauper asylum, from whence she was removed to the county asylum, on its opening in 1841.

APPENDIX.

APPENDIX.

No. I.

A PAPER READ BEFORE "THE SOCIETY FOR IMPROVING THE CONDITION OF THE INSANE," *by Sir A. Morison, M.D.—1st July*, 1844.

GENTLEMEN,

I embrace the present opportunity of offering a few observations upon a subject intimately connected with the object of our society—the extension, amongst medical men, of the knowledge of the nature, causes, and treatment of mental diseases.

For many years past I have studied to accomplish this very desirable object, and have attempted in various ways, to induce medical men to turn their attention to it; at the present time, the public appears to take an interest in it, and I have great hopes that something will be effected.

Above twenty years ago, encouraged by His Royal Highness the late Duke of York (the guardian of his father, King George the Third, during his long and melancholy illness), I arranged a course of lectures on the subject, which I delivered in 1823, and which I have continued to the present time. His Royal Highness was pleased to communicate his approbation in the following

terms:—"His Royal Highness the Duke of York much approves of the proposed undertaking, of giving a course of lectures on the cure and prevention of mental diseases, and commands me to acquaint you that he will most readily afford you his patronage on the occasion."—Signed, Patrick Mac Gregor, 1st October, 1823.

In 1823, I made an application to the University of Edinburgh, that these lectures might be attached to the course of study of the medical students of that place; and notice is taken of them in the Report of the Commissioners on the Universities in Scotland;—Vol. I, p. 216, and p. 348, printed in 1837.

At p. 216, Professor Alison, on 24th October, 1826, in his examination says:—

"There is but one point in regard to the Medical School, which I did not mention. It has been talked of, at different times, that there should be a professorship of mental diseases: this is what has occurred to me, as being an improvement that might be useful in the University; not that it might be imperative on the students, but that it might be an adjunct to the Medical School.

A number of men study here, who afterwards become physicians to the lunatic hospitals in different parts of the country, and have the charge of many persons there confined, and to whom it is an object to have the care of such patients. I have thought, if that were the case, there might be a sort of clinical ward, put under the charge of such a professor in the establishment for lunatics here which are very considerable.

There is an institution of that kind at Paris; there is not a professorship attached to it, but there is a physician who has the charge of the lunatics. At the Salpêtriére there is a full course of lectures given on the subject; I have heard some of them myself; they have been attended by several friends of mine, at Paris, —Englishmen, who have thought it very useful; and a similar institution, I think, might be easily formed here."

The question was put,—"Would not that interfere with the treatment of the patients?" "Of course, if such an establishment were formed, it could not be all the lunatics that could be made

the subject of clinical lectures, but a certain number might." And at page 348 of the same report, Dr. J. Abercrombie, in his examination, 10th November, 1826, says in reply to the question, —"Would you consider that any advantage was likely to be derived from the institution of a class for the purpose of lectures on mental diseases, connected with the asylum, if it could be done?"—"I do not know; it comes in always as a part of the class of the practice of physic. I do not see much encouragement for a separate professorship of that kind; but, a *lectureship* on that subject might be attached to the University with advantage."

The Rev. George H. Baird, Principal of the University, in a letter dated 31st July, 1827, says: Though I am not professionally a medical person, and may therefore be considered as comparatively an incompetent judge of the value of a separate course of lectures on mental diseases; yet I presume to state my decided opinion, both on general principles, and on a careful perusal of the syllabus of that course which you have repeatedly given here, and which was given to my personal knowledge with the high approbation of skilful medical men, that such a course would form a useful and important addition to the means of education, at once for the physician and the surgeon."

Some time after, I made an application to Government, but the importance of the subject did not then appear to be appreciated. Of this importance, Sir William Ellis, a practical author of much experience, in his publication on insanity, 1838, says, "it is perfectly inconsistent with common sense to suppose that a man shall intuitively know how to treat insanity." It is universally acknowledged to be a most difficult and mysterious disease, and yet it is almost the only one on which the medical student receives no particular instruction. In his attendance at the hospitals, he will in all probability have met with almost every other variety of disease which afflicts human nature; at all events, his lectures will have supplied him with some information as to their treatment; but I believe that my friend and colleague,

Dr. Morison, of Cavendish Square, is the only lecturer in London, expressly on insanity; and I understand that he has not a large class."—"The result is, that professional men, in other respects well educated, commence practice almost in a state of ignorance on the subject; this ought to be remedied; the first step would be, not to permit any student to be qualified to pass an examination, either as a physician, surgeon or apothecary, without producing certificates of having previously attended a course of lectures on insanity." He further adds, "I am aware that the instruction obtained from the mere attendance upon lectures, would not be sufficient to qualify a professional man for undertaking the moral as well as the medical management; but the knowledge that would by this means be gained of the premonitory symptoms, would frequently prevent an attack of insanity coming on." —"Clinical lectures have been very strongly recommended; and, if the instruction of the pupils were the only object, there can be no doubt that they ought to be adopted; but it must be remembered, that the first things to be considered are the care and welfare of the patients; and any one *practically* conversant with the disease will, I am sure, acknowledge, that the excitement which would be produced on the minds of the patients by a number of pupils going round an asylum, in the same manner as they go round an hospital, would be most prejudicial; in many cases it would entirely prevent recovery; this, therefore, as a general practice, can never be adopted; but there would be no objection to permit such members of the profession as determined to apply themselves exclusively, or more particularly to the study of this disease, to attend public asylums daily."

In October, 1839, I presented a petition to the magistrates managing the Middlesex Asylum, at Hanwell, to which I had been appointed by them Consulting Physician, in 1832. The petition stated, "That great difficulty is found by the student of medicine in rendering himself familiar with the appearances of mental diseases. That the want of opportunity of becoming so during his studies, is often severely felt by the practitioner, when called upon to undertake the treatment of insanity, to sign

a certificate of his opinion of the mental condition of his patient, or to give evidence in a court of justice. That this opportunity may be obtained in the asylum under your management, in which there are now above six hundred patients. That your petitioner has for many years been employed in preparing lectures on the nature, causes, and treatment of mental diseases, testimonials of the utility of which are laid before you. That he has continued to deliver these lectures since they were instituted in 1823,—being, he believes, the only regular course of lectures on that subject delivered in this kingdom. That the utility of these lectures would be extended, by your allowing your petitioner to take with him, once or twice a week, a limited number, not exceeding two or three pupils, to visit Hanwell Asylum, in order to explain to them the different varieties of mental diseases—the various stages, complications and terminations thereof—the mode of treatment, and the *post mortem* appearances. Your petitioner confidently trusts, that a due consideration of the advantages that may result to the community from this measure, in extending the practical knowledge of this important class of diseases, will induce you to grant the petition he has now the honor of laying before you."

The petition was agreed to, "with the unanimous feeling of the magistrates." A favourable reply was given to my petition of a similar nature, by the magistrates managing the Surrey Lunatic Asylum, in 1842.

And I may add, that greater facility of admission to the wards of Bethlehem Hospital and of St. Luke's Hospital, is now, by the indulgence of the governors, offered to students.

All our endeavours, however, will fall short of obtaining the desired object, unless means be taken to induce medical students to devote a portion of their time and attention to obtain a competent knowledge of the subject. This may be done, if before admission into the medical services of the Army, the Navy, or the East India Company,—or before admission into the Colleges of Physicians, or of Surgeons, or into the Apothecaries Company, the applicant be required to produce a certificate of his attendance

on a course of not less than lectures on mental diseases; together with such attendance at an hospital or asylum for the insane, containing not less than patients, as may be considered sufficient to ensure a competent knowledge of the subject; the expense of which to the student, need not exceed a few pounds.

In conclusion, from the favourable replies to the petitions I have now read, there is little doubt of the managers of the hospitals and asylums for the insane readily giving every facility to this measure.

No. II.

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Unnatural thickness of the skull	18
Adherence of dura mater to the skull	9
Opacity and thickening of the arachnoid membrane...	33
Infiltration of the arachnoid membrane	16
False membranes	4
Vascularity of the pia mater	17
Vascularity of the convolutions	25
General paleness of the brain	9
Flattening and atrophy of the convolutions... ...	9
General softness of the brain...	18
Ramolissement of portions of the brain	5
Hardness of the white substance	2
Softening of the commissures of the brain	11
Effusion of serum into the ventricles	35
Hydatiform vesicles in the choroid plexuses ...	7

The examination of the brains of 23 epileptics, gave somewhat different results:—

Unnatural thickness of the skull	5
Unnatural thinness of the skull	3
Unnatural prominence of osseous ridges	7
Spiculæ of bone in the dura mater	2
Thickening of the dura mater	4
Opacity of the arachnoid membrane	9
Vascularity of the pia mater	17
Vascularity of the brain	14
Softening of the brain...	8
Softening of the commissures...	2
Effusion of serum	19
Hydatiform vesicles in the choroid plexuses... ...	2
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